THE KNOWLEDGE OF GOOD

Critique of Axiological Reason

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THE KNOWLEDGE OF GOOD

Critique of Axiological Reason

Robert S. Hartman

An Expanded Translation by the Author
Based on His
Conocimiento del bien: Critica de la razón axiológical

Edited by

Arthur R. Ellis
Rem B. Edwards

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CONTENTS

EDITORIAL FOREWORD

Early in 1999 Dr. David Mefford found in his files part of a book manuscript that Robert S. Hartman gave to him some time before his death on 20 September 1973. David passed it along to Dr. Arthur Ellis, who diligently searched for a more complete manuscript in the Hartman archives in the Hoskins Special Collections Library at The University of Tennessee where, before her death, Mrs. Rita Hartman sent all of her husbands papers and manuscripts. There, Art eventually found an extensively revised and finished copy of the manuscript of the present book, which Bob Hartman apparently completed shortly before his death.

In June of 2001, Gary Acquaviva alerted us to the possibility that this might be a translation of Robert S. Hartman's *El Conoci-mimento del Bien: Crítica dela Razón Axiologica*, originally published in Spanish in Mexico City–Buenos Aires by the *Fondo de Cultura Económica* in 1965, copyrighted by Hartman himself. Up to this point, the editors were proceeding on the assumption that this was a new book that Hartman completed just before his death. Our reason for thinking so was that he refers frequently in it to his own *The Structure of Value*, published in 1967. It now appears, thanks to Gary Acquaviva's information, that it is indeed an extensively revised translation of his *El Conocimimento del Bien: Crítica dela Razón Axiologica* which Hartman translated, updated, and completed shortly before his death, but it is not a previously unpublished book. The first edition was published in Spanish by the *Universidad Nacional Autónoma de México* and the *Fondo de Cultura Económica* of Mexico City and Buenos Aires in their *Dianoia* series (1965). Many thanks to the Editors at *Dianoia* and to the original publisher for their kind permission to publish in English this expanded translation of Hartman's book.

The immense significance of this book for formal axiology was readily apparent to the editors, even from a cursory examination of the manuscript; and Art Ellis and Rem B. Edwards agreed to edit it for publication in the Hartman Institute Studies in Axiology special series of the Value Inquiry Book Series. This proved to be a mammoth undertaking for both editors. First, the library copy of the manuscript was photocopied, no easy task since Hartman usually filled every page completely and left absolutely no margins on the sides or at the top and bottom of his pages. This photocopy was then scanned to get a version of it onto a computer disk. Unfortunately, the typewriter Hartman used to produce his original manuscript had a well-used ribbon that printed only dimly and with many broken letters, so the scanned version was a total mess requiring literally months of work just to make the computer version readable and faithful to the original. Many additional months of effort went into editing it to conform to the exacting editorial standards of the Value Inquiry Book Series.

Hartman's voluminous footnotes contained both reference materials and substantive comments. As Rodopi requires, the substantive comments have been integrated into the main text, and the references were converted from footnotes

into endnotes. In providing documentation, Hartman gave only the year and place of publication but never the publisher of a book; he usually gave only the last name of authors of books and articles; and he often omitted page numbers. All of this information had to be looked up, completed, and corrected. In the very few instances where Hartman's sources could not be traced, relevant notes will give all the information Hartman made available.

We editors now feel like we have been wrestling for well over two years with the Great Leviathan of Axiology! Despite all the difficulties, we are convinced that this book contributes significantly to the philosophical defense and development of Robert S. Hartman's formal axiology. In it, Hartman takes on practically everyone who was anyone in value theory at the middle of the 20th century; and he shows exactly where everyone went astray or fell short in light of formal axiology. Even a partial list of those he takes on is impressive. Proceeding alphabetically with a very incomplete list, Hartman draws what he can from, but then trounces A. J. Ayer, Kurt Baier, Brand Blanshard, R. B. Braithwaite, Daniel Christoff, Felix S. Cohen, Donald Davidson, Abraham Edel, Paul Edwards, Albert Einstein, Herbert Feigl, William K. Frankena, Risieri Frondizi, A. C. Garnett, Everett W. Hall, Stuart Hampshire, Ingemar Hedenius, R. M. Hare, Nicolai Hartmann, Martin Heidegger, Thomas Hill, A. L. Hilliard, Henry Lanz, C. I. Lewis, G. E. Moore, Henry Margenau, Charles W. Morris, F. S. C. Northrop, P. H. Nowell-Smith, Jose Ortega y Gasset, A. N. Prior, D. D. Raphael, Bertrand Russell, Charles Stevenson, Patrick Suppes, Paul W. Taylor, Stephen E. Toulmin, J. O. Urmson, and Georg Henrik von Wright. French, German, Italian, and Spanish speaking value theorists are also much better represented in the book itself than in the preceding list.

If, as Robert S. Hartman maintained, goodness is complete concept or standard fulfillment, we can assess the goodness or adequacy of a philosophical position only by applying to it a well developed concept of good-making criteria. Good philosophy incorporates conceptual clarity, logical consistency, systematic orderliness, comprehensive inclusiveness, immense explanatory power, faithfulness to experience, relevant applicability, intuitive allure, and fruitfulness in guiding future research. A good philosophy is creatively insightful; it goes further, sees further, illuminates more, pushes back more darkness than other perspectives. It persuasively identifies and illuminates the errors and confusions of its competition. In all these respects, the axiology developed in this book and in other writings by Robert S. Hartman is good philosophy. This book especially is a powerful defense of formal axiology as the premier value theory of the twentieth century. Prior to the publication of this book, professional philosophers have neglected Robert S. Hartman. With its publication, they can no longer afford to do so. This does not mean that Hartman is above reproach, that he did not make mistakes, or that he solves all the problems associated with human values and valuations. It does mean,

speaking metaphorically, that he is a heavyweight champion in axiology, or, to use a metaphor he would have preferred, he is a virtuoso.

The editors of this book regret that finding the book manuscript and bringing it to the public took so long. We greatly appreciate Robert Ginsberg and the staff at Editions Rodopi for all their support of our efforts and for publishing this and all the other books now existing in the Hartman Institute Axiology Studies special series. Art Ellis is grateful for technical support from Steve Hrivnak and Lori Bouton. Thanks also to Dr. Mark A. Moore for paying the permission-to-quote fees.

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Part One

THE VALUE OF REASON

I want to see you experts in good. St. Paul, *Romans*, 16:19

Est enim virtus perfecta ratio. Cicero, *De Legibus*, 1, 45

One

THE KNOWLEDGE OF VALUE

Give the argument itself your attention and observe what will become of it under the test of logical refutation.[1] Plato

1. The Nature of Critique

When Immanuel Kant wrote the *Critique of Pure Reason* he had the double task of any pioneer in a new science: to construct the new science and, in the light of it, to criticize preceding philosophies. Before his mind were the notion and structure of a new science of metaphysics based on reason in its transcendental use, in the light of which he criticized the old philosophies of metaphysics based on reason in its transcendent use.

In the famous Third Question of the *Prolegomena*, "How Is Metaphysics in General Possible?" corresponding to the Transcendental Dialectic in the *Critique*, he shows that metaphysics is the discipline of pure transcendent reason, of reason without reference to experience, fundamentally different from transcendental reason. Whereas transcendental reason can be checked by sense perception, as in any natural science, transcendent reason cannot. Whatever checks there are must be contained within reason itself. The checks inherent in it appear in the transcendental Ideas, which in turn are based on three fundamental forms of reason, the three forms of the syllogism. These checks appear in the form of contradictions of reason with itself in its transcendental use. These contradictions arise invariably when reason speculates about non-empirical objects such as the Soul, the World, or God. The task of scientific metaphysics, in the transcendental dialectic, is to show up the contradictions reason gets entangled in (paralogisms, antinomies, fallacies of the Ideal of reason) when soaring off into the transcendent realm, contradictions that make all the efforts of reason futile—as if it were a dove that thinks it can fly more easily in the stratosphere. Contradiction, in various forms, is the technical tool Kant uses for his critique of reason.

In the Fourth Question of the *Prolegomena*, "How is Metaphysics as a Science Possible?" Kant shows that metaphysics as a natural disposition of reason is real, but considered by itself alone it is illusory. Taking principles from it and using them to follow its natural but false illusions, we can never produce a science but only a vain dialectical art in which one school may outdo another but none can ever acquire a just and lasting result. In order for metaphysics to be a science it must be a system that exhibits the whole stock of *a priori* concepts in completeness and consistency. In this sense, critique itself is the science of metaphysics.

> Whoever has once tasted critique will be ever after disgusted with all dogmatic twaddle which he formerly had to put up with. Critique stands in the same relation to the common metaphysics of the schools as chemistry does to alchemy, or as astronomy to the astrology of the fortunetellers. I pledge myself that nobody who has thought through and grasped the principles of critique will ever return to that old and sophistical pseudoscience.[2]

The reason is that pre-critical metaphysics was nothing but analyses of concepts, and dissections of concepts do not advance a subject matter.

> Ever since I have come to know critique whenever I finish reading a book of metaphysical contents....I cannot help asking, 'Has this author indeed advanced metaphysics a single step?' I have never been able to find either their essays or my own less important ones...to have advanced the science of metaphysics in the least. There is a very obvious reason for this: metaphysics did not then exist as a science....By the analytical treatment of our concepts the understanding gains indeed a great deal; but the science of metaphysics is thereby not in the least advanced because these dissections of concepts are nothing but the materials from which our science has to be fashioned....By all its analyzing nothing is effected, nothing obtained or forwarded; and the science, after all this bustle and noise, still remains as it was in the days of Aristotle, though there were far better preparations for it than of old if only the clue to synthetical cognitions had been discovered.[3]

Whether Kant's science of metaphysics is actually the science of metaphysics need not be discussed here, but it is certain that his procedure was the methodologically correct one. Anyone who wishes to establish a new science has to (1) produce a coherent and consistent system that covers the subject matter completely; (2) produce criteria for distinguishing the new science from the preceding philosophies, criteria which must be part of the new science; and (3) find the distinction of the preceding philosophies and the new science in the analytic procedure of these philosophies and the synthetic procedure of the new science.

Construction and critique must go hand in hand; both are two sides of one and the same coin. In the natural sciences, the great master of both construction and critique in this sense was Galileo Galilei. In his *Two Great Systems of the World*, he founded his "two new sciences"; and, even more explicitly and comprehensively, he criticized his Aristotelian predecessors. Galileo elaborated the new science, and thus relieved all his successors in natural science of the task of critique and set them free to follow the course he had staked out.

The science of value today is in the same position as the science of nature at the time of Galileo and that of metaphysics at the time of Kant. It is not enough to construct a science; it also has to be used in order to criticize the still ruling value philosophy. The construction of the science began in my previous book, *The Structure of Value*. In the present book the other side of the coin will be presented: the science of value is used as a critique of value philosophies. In this book, I will follow the general procedure of critique, that is, criticize preceding philosophies by criteria contained in the new science.

2. The Axiological Fallacies

The criteria in question are the axiological fallacies, explained in *The Structure of Value*.[4] These fallacies are part of the system of formal axiology. Axiology as a science is distinguished from axiology as philosophy in three ways.

First, in axiology as philosophy, the concept of value is a category, while in axiology as a science it is the axiom of a system. A category is a concept abstracted from concrete reality and, according to a fundamental law of logic, its intension diminishes in proportion to its increase in extension. An axiom, by contrast, is a formula constructed by the human mind whose intension, in the form of a system, increases in proportion to its increase in extension. The intension and extension of a category vary in inverse proportion while those of an axiom vary in direct proportion.[5] Consequently, a category is not applicable to reality because the range of its meaning does not cover the details of actual situations. A system is applicable to reality because it has a complexity that corresponds to the complexity of actual situations. In natural science, the system corresponding to natural reality is that of mathematics; in moral science, the system corresponding to moral reality is formal axiology.

Second, the transition from a philosophy to a science is characterized by the combination of a chaos of phenomena with a formal system. In *The Structure of Value* the chaos of value phenomena was combined with the system of logic itself by the axiomatic identification of "value" with "similarity of intension."[6]

Third, the analysis of value through the system follows necessary logical laws and not accidental philosophies of individual thinkers. By the same logical necessity, these philosophies appear logically fallacious. That is to say, the system of axiology, using the same procedure by which it positively accounts for the value world, accounts negatively for the accounts of this world by value philosophy. The construction itself contains the criteria of the critique.

Perhaps a critique of axiological reason was written previously by G. E. Moore in *Principia Ethica*, and his book may contain a criterion for the critique of previous value philosophies in the naturalistic fallacy. Moore wrote *Principia Ethica* after a careful study of Kant. No doubt, Moore's book was meant as such a critique.[7] He used the naturalistic fallacy, which is confusing the property

good with other properties such as pleasant, desired, and the like that belong not to ethics but to psychology and other natural sciences, to critique all forms of ethical philosophies. He criticized naturalistic ethics, hedonism, metaphysical ethics, and others—the main trends of pre-Moorean ethics—all those ethics that we would call "classical" today, including that of Kant.[8] Kant did not follow his own scientific understanding of metaphysics insofar as the metaphysics of morals is concerned, even though he regarded this metaphysics in exactly the same way as he did the science of metaphysics of the first *Critique*.[9] But Moore's critique lacks the systematic basis that belonged to both Galileo's critique of Aristotelian natural philosophy and Kant's critique of metaphysical philosophy: the system, newly constructed, that both accounts for the field in question and the critique of its predecessors.

"Good" for Moore was indefinable; hence, the naturalistic fallacy was not an organic part of a definition or a system of axiology. Moore did not even know that he was writing axiology but thought he was writing ethics. He did not methodologically penetrate into axiology, as did Kant into metaphysics and Galileo into mechanics. As a result, he only intuitively hit upon certain systematic features of goodness, such as that it is not a descriptive property and that judgments about it must be synthetic; and his naturalistic fallacy was an *ad hoc* invention. His *Principia Ethica* is only a fragmentary critique of axiological reason. Yet, it is penetrating enough for any new critique of axiological reason not to have to repeat its critique of pre-Moorean philosophers.

The Structure of Value was a logical generalization and elaboration of Moore's "paradox" of good as a non-descriptive property that yet depends only on the descriptive properties of objects. It defined descriptive properties as sets of intensional properties and applied some aspects of set theory to these sets. It presented a logical generalization and elaboration of the naturalistic fallacy and showed that this fallacy is only one of a cluster of methodological fallacies. The generalization of the naturalistic fallacy revealed that such fallacies inhere in any philosophy when it is seen from the point of view of the subsequent science. This was shown to be particularly striking in the almost simultaneous attempt of Gottlob Frege and Bertrand Russell on the one hand, and Moore on the other, to transform Mathematics and Ethics, respectively, into sciences. All three hit on the same fallacy without ever recognizing it as such. This proved disastrous for Frege in mathematics and for Russell in ethics. Because of the fundamental importance of this for our subject, let us briefly review it.

Moore made it clear in 1903 that the whole of ethics before him rested on a logical mistake. Any attempt, he showed, to define value by specific kinds of value—ontological, teleological, epistemological, theological, psychological, ethical—as perfection, purpose, function, knowledge, God, pleasure, self-realization, preference, and so on, was a confusion not only of specific values with one another but also of value in general with value in particular. The naturalistic fallacy implied both a confusion of generic value with specific values and of

different specific values with each other. But Moore was not clear on these two different confusions contained in the naturalistic fallacy. Neither was he clear about the fact that this fallacy is one not only of ethical reasoning but of *all pre-scientific reasoning.* It is contained in the very nature of the category. It inheres in categorial—rather than axiomatic—thinking. It was also found in mathematics as long as number was regarded philosophically rather than scientifically, (or, as Russell says, "mathematically"). As late as 1884, Frege had to make clear that number is "as little an object of psychology or an outcome of psychical processes as the North Sea..." and, as late as 1914, that there is a difference between number, the numbered symbol, and the thing symbolized, a function and its value.[10] Rudolf Carnap remarked that "unfortunately [Frege's] admonitions go mostly unheeded even today."[11]

According to Bertrand Russell,

> The question 'What is number?' is one which, until quite recent times, was never considered in the kind of way that is capable of yielding a precise answer. Philosophers were content with some vague dictum such as 'Number is unity in plurality'. A typical definition of the kind that contented philosophers is the following from Sigwart's *Logic* (Par. 66, Section 3): 'Every number is not merely a plurality but a plurality thought as held together and enclosed, and to that extent as a unity.' Now there is in such definitions a very elementary blunder, of the same kind that would be committed if we said 'yellow is a flower' because some flowers are yellow. Take, for example, the number 3. The number 3 is something which all collections of three things have in common, but is not itself a collection of three things.[12]

Exactly analogous is the argument of G. E. Moore about Value. To define Value as pleasure or the like would be to define a particular kind of value as Value itself. It would be the same as to hold, when we say "an orange is yellow," that "orange" means nothing else but "yellow" or that nothing can be yellow but an orange.[13] Such definitions will not do for the science of ethics that Moore had in mind.

> We should not get very far with our science, if we were bound to hold that everything which was yellow, meant exactly the same thing as 'yellow.' We should find we had to hold that an orange was exactly the same thing as a stool, a piece of paper, a lemon, anything you like. We could prove any number of absurdities; but should we be nearer to the truth? Why then should it be different with 'good'?...There is no meaning in saying that pleasure is good unless good is something different from pleasure.[14]

In a science such confusions are not possible because the axiom and the system developed from it clarify the differences between the system itself, the phenomena to which it applies, and the method of application. The relation between the generic and the specific is itself specified. What Russell and Moore have to say applies not merely to the fields of number and value but also to the relation between the generic and the specific in any philosophy. Before there can be a science—of mathematics, of axiology, and so on—confusion between the generic and the specific in the corresponding philosophy must first be eliminated. In natural philosophy, the same fallacy was committed in alchemy, where colors were confused with substances, and it was thought that the color of a thing, A, could be given to a thing, B, by mixing A and B, or when species of disciplines themselves were confused such as religion and chemistry, or when a prayer was needed to transmute an element. The main function of a new science is strictly to delimit the science and its subject matter from the chaos of determinations of preceding philosophies. In this sense, critique is part of a new science.

The naturalistic fallacy is the general fallacy of confusing the generic with the specific. In order for this fallacy to be systematically recognized, the generic has to be defined by a system that in turn can determine the specific. As long as there was no such system for Value—and Moore did not present one—it could be denied, and has been denied ever since Moore, that the naturalistic fallacy is a fallacy. Yet, it is impossible to speak of a specific kind of value, say economic value, if we do not know what Value in general is. If the genus is unknown, the differentia are senseless. Moore's naturalistic fallacy is really a fallacy of philosophical method. An analysis of the history of science shows that whenever a philosophical definition of a subject matter is replaced by a scientific one, the philosophical definition appears as a methodological fallacy, such as the naturalistic fallacy. This fallacy, as a confusion of logical types, is a true logical fallacy, and it is only one of a cluster of such fallacies. Moore saw only one fallacy where there are at least four. Also, he did not see the methodological nature of the fallacy as due to a transition from the analytic to the synthetic, the categorical to the axiomatic, in short, the transition from philosophy to science, which he wanted to bring about in ethics.

I will now both generalize and differentiate Moore's naturalistic fallacy and set it within the total field to which it belongs, the cluster of fallacies which appear from the vantage point of any new science. In this particular case, dealing with the new science of axiology, it is appropriate to call them the "axiological fallacies."

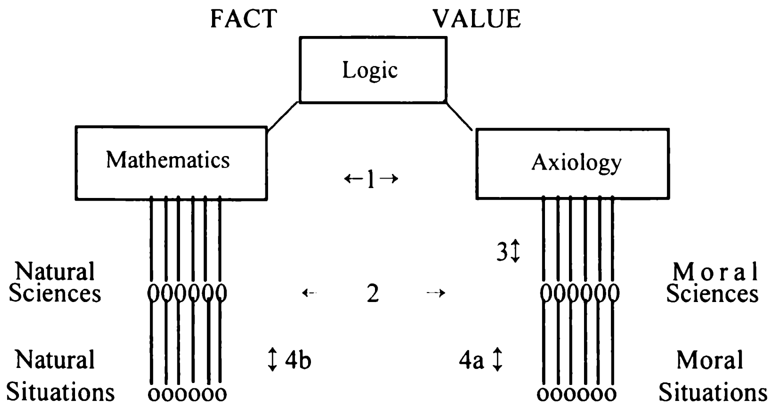
I define a "science" as "the combination of a formal frame of reference with a set of objects." From this definition it follows that each science has its own frame of reference and its own set of objects. That is to say, a datum becomes an object of natural science if the frame of reference of natural science is applied to it; it becomes an object of value science if the frame of reference

of value science is applied to it. The same datum, thus, can appear either as an object of natural science or of axiological science, depending on the frame of reference applied. The world, although ontologically one, may appear in as many aspects as there are frames of reference applied to it, in the same way that one and the same curve may appear as either convex or concave, straight or curved, depending on the view or frame of reference used; in the view of the differential calculus—if it is applicable—it appears as a straight line. Always the same world is viewed, but it is viewed differently by each science. Each science, by its own frame of reference, generates its own subject matter.

The axiological fallacies follow from this distinction between the sciences. They are confusions between different sciences of, (a) general frames of reference, (b) specific frames of reference, (c) general with specific frames of reference, and (d) specific frames of reference with their subject matter.

The first of these fallacies I call the "metaphysical fallacy" because it confuses different world views. The second I call the "naturalistic fallacy" because its most usual form is the confusion of specific natural sciences with specific moral sciences, for example, biology with ethics; it also confuses different natural sciences with each other or different moral sciences with each other, for example ethics with religion. The third is the "moral fallacy," for its most usual form is the confusion of axiology with ethics. The fourth is the "fallacy of method," the confusion of a specific science—whether natural or moral—with its subject matter. Subdivisions of this fallacy are the "empirical" and the "normative" fallacies, respectively, both of which predicate of the science itself an attribute belonging to the subject matter of a science—that of being empirical and of being normative, respectively. Using the fallacies in the following discussion will reveal their details. The axiological fallacies may be schematized as:

The World of Fact, the World of Value, and the Axiological Fallacies



1. Metaphysical fallacy—Confusion between world of fact and world of value. For example, Sigmund Freud said "Religion has not stood the test of science."[15] Religion and science each have their separate logic, and the logic of the one must not be applied to the other.

2. Naturalistic fallacy—Confusion between particular kinds of value and/or fact. "To be moral is to believe in God." Moral value and religious value are different kinds of value and must not be regarded as identical. "Value is evolution," "Value is satisfaction," and so on, are confusions of this type.

3. Moral fallacy—Confusion between value in general and value in particular. For example, "Good is pleasure." Pleasure is something that is good; it is not Goodness itself. "A murderer cannot be good." Murderers can be good axiologically—good as murderers, fulfilling the definition of "murderer"—but they cannot be good morally.

4a. Fallacy of method—Confusion between value situation and value analysis. "An irrational situation cannot be analyzed rationally," "Religion is a matter of ultimate concern and hence beyond rational analysis." To be religious. is one thing, to analyze being religious is another thing. "Value theory prescribes value." Value theory is purely formal, like mathematics. It deals with prescriptions, ("ought") but is not itself prescriptive, (normative fallacy). "Ethics is a normative discipline." Ethics deals with norms. It is not itself a set of norms. G. E. Moore said "It is not the business of the ethical philosopher to give personal advice or exhortation."[16]

4b. Empirical fallacy—Confusion between a natural situation and a natural science. "All science is empirical." All science is a frame of reference applied to a subject matter. The subject matter may be empirical. The nature of the subject matter of some science—for example "empirical"—does not determine the nature of all science.

The fallacies of axiological thought are powerful instruments for the analysis of value theories. They are for me what the laws of thought, in particular the law of contradiction, were for Kant's critique of pure reason, and the laws of mathematics were for Galileo's critique of Aristotle's mechanics. These critiques were an organic part of the new sciences these pioneers endeavored to establish. Their sciences had to be created organically out of, as well as in definite distinction from, the corresponding philosophies of their age. Galileo's work was foreshadowed in the works of Robert Grosseteste, Nicholas Oresme, Piero Tartagilia, Alessandro Benedetti, and others. Galileo's main contribution was the new form in which the problems appeared in his head, "a different kind of thinking-cap, a transposition in the mind of the scientist himself," as Herbert Butterfield put it.[17] Kant's *Critique of Pure Reason* was "the execution of Hume's problem in its widest extent," resulting "in a perfectly new science, of which no one has ever even thought, the very idea of which was unknown," a formal science which not even Hume suspected.[18]

3. The Cognition of Value

If a science of ethics, and of valuation in general, is ever to be created, it too must grow organically out of, and in distinction from, the total field of ethical theories. This field is the matrix out of which the new science must be born, in the same way that Kant's science of metaphysics was born out of the matrix of skeptical and dogmatic philosophy and natural science out of the matrix of natural philosophy. In all such cases, the matrices are analytic—in the methodological sense of Kant—while the new science is a synthetic structure, which means that the first consists of either analytic or synthetic judgments, and the second of exclusively synthetic *a priori* judgments. In today's axiological philosophy the germs of such a new point of departure are found, in the same way that the germs of their radical departures could be found in pre-Kantian and in pre- Galilean philosophy.

For this reason, the critique of contemporary ethical theories is not a merely negative enterprise. It accomplishes, at the same time, three positive tasks: (1) showing the matrix out of which scientific axiology must develop and the points of departure of the new science; (2) presenting the transition from moral philosophy to moral science, (which in *The Structure of Value* was shown systematically) in the reality of contemporary axiological doctrine; and (3) fulfilling one of the two principal tasks of formal axiology, that of consistently accounting for the variety of axiological theories. The second task of consistently accounting for moral phenomena will be discussed in the third part of this book.

As in pre-Kantian metaphysics, axiology today is divided between "skeptics" and "dogmatists." Among the first are the so-called "positivists," who affirm the intelligibility of fact but deny that of value; among the second are the "ontologists" and "phenomenologists," who affirm the reality and/or the essentiality of value. Positivistic value theory has led to a situation unique in the history of moral philosophy: "normative" value propositions are regarded as expressions of emotions, without rational meaning. Although this theory was in vogue in only a small part of the philosophical world, originally in Vienna and later in England and North America, it is of special interest in value theory for it provided the absolute zero point in the scale of valuational knowledge. The radical positivists furnished a viewpoint from which philosophically nothing less could be said on value. It was the low point of the philosophical understanding of value and as such came as a shock to morally sensitive people, similar to the one suffered, reportedly, by the onlookers of Diogenes' manipulations on the *agora*, designed also to drive home the futility of the philosophy of good. This low point was, at the same time, a starting point: any new development could only be in the direction of valuational knowledge. Value philosophers either had to become psychologists, or else had to find in value judgments at least one feature amenable to logical treatment.

Indeed, the whole development since 1936 may be regarded as a reaction against positivistic value nihilism. The most recent positivistic schools of ethics are attempts, without leaving the positivistic basis, to find some intellectual method to account for value phenomena. The Wittgensteinian school is an advance against the nihilistic position of radical positivism insofar as it holds that some knowledge of value is possible, a special limited kind—retail rather than wholesale knowledge, as it has been called. So is the emotivist school which tries to find *ad hoc* logics for the moral judgment positivistically defined as emotive. Higher up on the scale are the naturalists, who believe they know what value is, but are opposed by the Mooreans who hold that what is thus defined is not value but fact. Though the Mooreans hold value to be indefinable, they are still higher up on the scale, for value, although indefinable, is by no means held to be unknowable; they do know what it is by non-discursive intuition; and some of them, who we may call the positive as against the negative Mooreans, even attempt to articulate this intuition by definition. Finally, at the opposite end of the scale from the axiological zero point, we have the dogmatists, those who ontologically or phenomenologically structure the value realm and who are as opposed to the radical positivists as Plato was to Diogenes. Beyond them, finally, at the very edge of the scale, and pointing to a realm of metaethics, are the formal axiologists, opposed to both the nihilism of the skeptics and the hypostatization of the dogmatists, yet in agreement with both—with the strict division of fact and value of the first and the requirement for complete articulation of the second. They are the axiological scientists in the Galilean and Kantian sense of the word.

Most of today's value theoreticians are somewhere in the middle of the scale along the naturalistic and ontological stretch. Few of them share the vision of a moral science, but even fewer accept the value nihilism of the past. More significantly, the trend of axiological thought is in the direction away from value nihilism and toward the rational cognition of value. Contemporary value theory is largely a search for rational tools of axiological cognition. I will now examine the scale of this cognition from a slightly different angle.

The main feature of the present situation is that of search. Value theory is in the aporetic stage: the only category by which its apparent chaos can be ordered is that of Problem. "Problem" is a definite cognitive category. By applying it we can bring some order into the welter of theories, which otherwise defies organization. The category of "problem" presupposes that there is an unknown x which is to be known and that there is some knowledge to account for x. In the present case, x is Value. To posit value as a problem means that it is at present unknown, that it is to be known, and that there is some knowledge to account for it. The failure of most of value theory is to concentrate on value rather than on the kind of knowledge appropriate to it. At this point, G. E. Moore made his classic contribution, little understood and neglected as it is. To paraphrase him, the failure of the attempt to define good is chiefly due to want

of clearness as to the possible nature of definition.[19] Once the nature of definition is clarified, and analytic and synthetic definitions are distinguished, the nature of value itself becomes clear: it cannot be defined analytically; to do so is precisely Moore's "naturalistic fallacy"; it must be defined synthetically. The kind of knowledge to account for x = Value is, thus, synthetic *a priori* knowledge. Once this is recognized the solution of the value problem is given: axiological cognition must be synthetic systematization as against analytic implication—value science as against value philosophy. Thus a norm for value knowledge is established.

Let us now apply this norm to the present status of ethical theory. We may call this the "second post-Moorean period," the first post-Moorean period being characterized by the positivistic, naturalistic, ontological, deontological, and phenomenological alternatives to Moore, highlighted by the works of A. J. Ayer, Charles L. Stevenson, John Dewey, Ralph Barton Perry, C. I. Lewis, W. M. Urban, W. D. Ross, Max Scheler, and Nicolai Hartmann. The second post Moorean period is one of catching breath and taking account of these prodigious efforts. It is more sophisticated, more tentative, and for the time being, less monumental.

Let us agree, then, that the knowledge of value is the fundamental problem of axiology. This problem came into being with Kant, which makes it particularly fitting that his logical distinction supplies us with the solution: the distinction between analytic and synthetic definition, which corresponds to that between analytic and synthetic *a priori* judgment—a distinction persistently neglected in today's value theory (as it is in today's logic). Kant never applied his logical distinction to value judgments, just as, for example, Bertrand Russell never applied his logic to ethics. For this reason, as we shall see, Kant's discussion of practical reason lacks the precision and coherence of his treatment of pure reason. This had its ground in the very base of Kant's philosophy. His dichotomy between the phenomenal and the noumenal assigned valuation to the noumenal. Since theoretical reason was legitimately applicable only to the phenomenal realm, the realm of value became deprived of logical structure. What had never before been too serious a problem, the knowledge of the good, now became a profound and almost desperate problem in the new terminology of value theory. Kant continuously used the word "value" without ever defining it. At the basis of his theory lies the principle of its indefinability, for it is based on the idea of Freedom, which is part of the noumenal realm and is theoretically inaccessible. Before Kant there had been little doubt that the good could be known, indeed, less doubt than that fact could be known. As late as 1695, John Locke doubted that there could ever be a science of nature—in spite of the work of "the incomparable Mr. Newton"—but he never doubted that there could be a science of morality as certain as mathematics.[20] He only echoed a belief firmly anchored in philosophy since Plato.

Kant had a good reason for his dichotomy. The knowledge of value is fundamentally different from the knowledge of fact for the simple reason that values are fundamentally different from facts. They cannot be observed by the senses or measured by meter rods or weighed by scales. Yet, most people, except the few remaining radical positivists, do not doubt that we do value and that value judgments, such as "Cheating is wrong," do mean at least something. The question of value theory, then, is, what do they mean? Even more fundamentally, what does it mean that they mean, or have meaning? What kind of meaning do they have? Do they refer to anything, such as a realm of values, or do they refer to nothing? If they refer to nothing, what kind of meaning could they possibly have? Are they merely noises made by people to express their attitudes of like and dislike, and thus subject to psychology rather than philosophy? Are they functions in human situations and hence belong to sociology and anthropology, like magic formulae and ceremonial utterances? Or are they some kind of non-referential statements, like those of mathematics or logic, which, although they refer to nothing, are applicable to everything—as were the notions of Plato and Locke, but not of Kant? All these views have been held and are being held at present, with the first—the ontological view of value realms—prevalent on the continents of Europe, Latin America, and Asia; the second—the view that value judgments are psychological or situational manifestations—prevails in England and the United States; and the third view, which approaches formal axiology, is maintained by some individual thinkers in Europe and in America.

The reason for this confusing variety of views on values is that nobody really knows what values are. If they were part of the sensible world, natural science would account for them. Some philosophers solve the problem simply by saying that they are, and that natural science does. But others are equally determined to say that they are not, and that natural science does not apply to them. This does not necessarily mean that no science applies to them. Numbers, too, are not of the sensible world. Yet, nobody would hold that when we say "$a^0 = 1$" we merely express an emotion or a magic formula—even though the expression may seem irrational to some. What we express is a formula of mathematics. The trouble with axiology is that we do not yet have a system within which value judgments find their place as mathematical judgments do in mathematics. Where there is no system there is confusion. For this reason value judgments are open to a free-for-all, with some announcing they refer to something, others that they refer to nothing, and yet others that they express psychological or sociological states. Thus, values have the usual epistemological position of things unknown—no more nor less so than, for example, flying saucers. Some believe they exist, some that they do not, and some that they are merely hallucinations. Or, if we go back to historical examples, values have the same epistemological status today as had the stone of the wise, the fountain of youth, or phlogiston, (the principle of fire). Some said these exist and some they do not.

Carl G. Jung has shown they are symbols of the unconscious mind.[21] The one way to break the magic circle of which these and other prescientific images were parts is to break completely with the entire world picture they represented and make a new and original beginning. This accomplishment was historically performed by Galileo. He invented an entirely new frame of reference in which to think of heaven and earth. His simple formulae opened up—by reason, not by magical persuasion—the storehouse of nature from which we have drawn the energy of the modern age.

The present confusion about value is nothing new or unique; it is simply a species of the knowledge of the unknown, of a problem. There are, in attacking the problem of finding *x*, three, and only three, logical possibilities: (1) to say there is no *x*, and that ends the problem right then and there; (2) to say there is *x*, and then to start looking both for it and for ways of looking for it; or (3) the intermediate position of saying there is and there is not *x*—there is in one sense, but not in another. The first position is "No, there is no value"; the second, "Yes, there is value"; the third, "Yes, there is value, but..." or "No, there is no value, but..." The first is the non-cognitivist position, the second the cognitivist, and the third the semi-cognitivist or semi-non-cognitivist position. All axiological schools belong to one or another of these positions. Their views range from the non-existence and non-knowability of values to their existence and exact knowability. I will now proceed to refine this scale of axiological cognition.

If we take the ultimate logical comprehension of value as a goal toward which value theory ought to strive, we get a spectrum reaching from those who deny all possibility of value knowledge to those who not only affirm such a possibility but design actual axiological systems. The second group approaches the problem on the basis of the following five propositions, each of which is denied by one or another axilogical school:

(1) There is value.

(2) Value is knowable.

(3) Value knowledge consists of systemization.

(4) Systemization is formal—based on axiomatic definition and deductive expansion of the essence of the value experience.

(5) The value system proves itself by the scope of its applicability to the value world.

Very few cognitivists will go all the way, but they all agree on (1) and (2) that there is value and it can be known. A few non-cognitivists deny (1) or (2) entirely, but many deny (2) in part, holding that the value phenomenon either cannot be communicated or that, of its two constituents—the descriptive and the normative—only the first can be known. A large school denies (3), insisting that the knowledge of value cannot be systematized but must be detected in every particular situation. Some cognitivists accept (1), (2), and (3) but deny (4), holding that the system must be inductive rather than deductive. Only the cognitiv ists who go all the way would construct a deductive system of axiology and

apply it to the value world in a way similar to how natural scientists apply the system of mathematics to the natural world. If we call those who deny (1) and/or, (2) non-cognitivists and those who affirm (1)—(3) cognitivists, then those who partly deny (2) or who deny (3) are semi-cognitivists, (or what amounts to the same, semi-non-cognitivists).

While these are the fundamental—and epistemological—division among value philosophers, there are subsidiary—and material—ones. Some are empiricists who find the essence of value in experience, either natural or non-natural. Others are formalists who find it in *The Structure of Value* judgments. Cutting through these divisions are distinctions between value naturalists, value ontologists, and value phenomenologists. The first believe that value is a natural or social phenomenon, the second that it is ontological, and the third that it is a peculiarly axiological phenomenon *sui generis*.

In all, value theories may be classified as follows:

1. Non-Cognitivists

A. Empiricists. Those who hold that only the empirical is knowable, deny the empirical—or any other—nature of value, and hence its knowability.

B. Formalists. Those who hold that the value experience appears essentially in value judgments but deny that the logic of these judgments is capable of rendering an adequate account of the experience.

2. Semi-(Non)-Cognitivists

A. Empiricists. Those who believe that the descriptive, (factual) aspect of value judgments is logically analyzable, but the non-descriptive emotional aspect is not, or not in the same way.

B. Formalists. Those who believe that value situations appear significantly in value judgments and that there is a logic of such judgments, but that this logic is *sui generis* and depends on the context of each situation.

3. Cognitivists

A. Naturalists. Those who believe that value is a phenomenon observable and analyzable like any natural or social phenomenon.

(1). Empiricists. Those who attempt to find value in the subject matter of the empirical—natural and social—sciences.

(2). Formalists. Those who propose to find value through the method rather than the content of these sciences.

B. Non-naturalists, (for whom value is a phenomenon *sui generis*).

(1). Empiricists. Those who find value in

a. Ontological experience, as an aspect of Being, or

b. Phenomenological experience, in a realm *sui generis*.

(2). Formalists. Those who believe that a logic is applicable to value phenomenon analogous to the one applicable to natural phenomena.

This classification in terms of a spectrum ranging from non-cognitivism to cognitivism brings order, not only into the theoretical field of value philosophy, but also a certain evolutionary order into its subject matter, value itself. For if, as was held by some of the more radical positivists, valuation is nothing but a psychological noise, then the most thorough valuation would take place in the excited chatter of the primeval forest. Valuation, thus seen, is on a lower level of rational behavior and is regarded as a well-ordered, systematically accessible, and richly differentiated form of experience, comparable in richness and comprehensibility to the experience of facts—as is held by the cognitivists. While value theories can be ordered in a scale of increasing rationality, from the unknowability of value to clear-cut definitions and systematization, the value experience itself mirrors this scale in an evolutionary gradation from animal noise to human reason.

The setting of axiological theories is supplied by certain writers who, stimulated by the diversity of the field, have given synoptic views of it. For instance, Brand Blanshard's bird's-eye view of the whole field of Anglo-Saxon ethics neglects the large schools of ontological, phenomenological, and formal ethics found in other parts of the world; but it sees a great tradition in ethics ending after 2000 years. Its rule was "so live as to produce the most good,"[22] where "good" was regarded as a simple non-natural quality, beyond all logical analysis, self-evident, and common to all experiences of value.

> It was nothing sensible like yellow or sweet.... It was one of those fundamental notions like time and existence, about which we can say extraordinarily little, in spite of being perfectly familiar with them.... If there is any ethical theory toward which we can claim a convergence of able minds from Plato and Aristotle down, I think it is this.[23]

Against this theory, says Blanshard, three attacks were leveled in the first post-Moorean period: the first against its goal, the second against its objectivity, and the third against its subject matter. The first attack was that of the deontologists, who held that ethics "was mistaken in deriving the right from the good"; the second was that of the positivists and emotivists, who contended that "goodness was not a quality at all and, therefore, inhered in nothing"; the third was that of the naturalists, "who insisted that even if goodness is a quality it is merely a natural one; and, therefore, ethics must give up its pretensions to being anything more than a natural science."[24]

The deontological attack began in 1912 with H. A. Prichard's article "Does Moral Philosophy Rest on a Mistake?"[25] According to Prichard it does, the mistake being the connection of duty with interest or advantage. If I have

given a promise, I ought to keep it, not because it is to my advantage, but, simply because I ought to.

> To justify keeping promises by hunting for profit in so doing is not only futile, it is wrong in principle, for it supposes that duty rests on prospective good, whereas we can often see plainly that something is our duty when we have no idea whether it will bring future good or not.[26]

Prichard's point that duty is independent of good was enlarged by Sir David Ross.[27] Duty has nothing to do with producing the greater good; occasionally it may be our duty to choose a course that will make the world worse.[28] Formal axiology sees Ross's "toti-resultant" quality of goodness and being our duty as analytic statements of its synthetic axiom.[29] The deontologists argue against good in the utilitarian sense. Blanshard disagrees; duty is ultimately anchored in a rational pattern of life. He replaces the utilitarian good by a kind of rational good. Following our duty will always be in accordance with this pattern, even though in particular cases it may seem that we are not doing the good.[30] Blanshard's reply to the deontologists, then, is that the right is based on the good and not the good on the right.[31] Unfortunately, neither for Blanshard nor for those he criticizes do these terms have a precise meaning.

Blanshard's answer to the positivists and emotivists is similar. The positivists hold that there are no such things as judgments of good or evil, or of right or wrong. David Hume had argued that the rightness of an action meant only that society, viewing the action in the light of its consequences, felt an emotion of approval toward it. According to Edward A. Westermarck, the judgment of right or good meant not that society approves of something but that I have approving feelings of my own.[32] The subjectivistic position of Hume and Westermarck, which Blanshard calls historical or traditional subjectivism, was refuted by G. E. Moore in his *Ethics*.[33]

According to Moore, if anything is clear about our discussions of moral problems, it is that our beliefs do sometimes clash. A subjectivism which tells us that such beliefs never do, (or can) clash rules itself out by plain discordance with facts.[34] But Moore did not count on the new subjectivism that arose subsequently in the emotivism of A. J. Ayer, Charles L. Stevenson, Rudolf Carnap, and Hans Reichenbach, who, by agreement and difference meant not agreement and difference in opinion, but in attitude. In this case, the paradoxes against which Moore argued would never arise[35] because

> ...sentences which simply express moral judgments do not say anything. They are pure expressions of feeling and as such do not come under the category of truth and falsehood. They are unverifiable for the same reason as a cry of pain or a word of command is unverifiable—because they do not express genuine propositions.[36]

Thus, like Prichard, the emotivists say that moral philosophy has been based on a mistake; "but the mistake was the more radical one of supposing our judgments on moral matters to be judgments at all."[37]

Blanshard, in his reply to the emotivists, falls back on his rational view of value. The emotivist theory "would in fact discredit the notion of justice interpersonal or international." It is systematically inaccurate and "careless" in its treatment of value judgments.[38] The emotivist view must yield because "it would require us to abandon ways of thinking which are far better grounded than it is itself."[39] It is wrong, for it is irreconcilable with our way of thinking on values; it renders all our attitudes arbitrary and groundless. Attitudes are divided by emotivists into pro- and anti-attitudes. But "why should we view with favor, say, our children's happiness and cultivation, and with disfavor their ignorance and misery? The natural answer is that happiness and cultivation are good and ignorance and misery are bad." But from this answer "the emotivist is cut off." For him the object is not favored because it is good, it is good because it is favored, and it is favored for no apparent reason.[40] Emotivists recognize no such thing as an objective good. Their view seems to Blanshard "less convincing...than the ancient and honorable prejudice" that there is such good, and that rationality and order rule in value judgments.[41]

The third wave of criticism against the traditional theory, the naturalistic, took its point of departure from Moore's reinterpretation of that theory. Moore's critique is directed against the traditional distinction between "is" and "ought." "When the ideal utilitarians concluded that duty lay in seeking not the greatest pleasure but the greatest good, they had on their hands the curiously baffling question of what to mean by 'good'." Good is that which is owned in common by all good things. But what is it? Moore's struggle with this question ended in the conclusion that goodness is not a character in the natural world at all. It can neither be sensed nor defined. It is so simple as to be unanalyzable.[42]

This reinterpretation of the traditional theory was criticized by moralists who could not find this simple, non-natural quality in their own experience and regarded it as a philosophical will-of-the-wisp that dissolves when we try to get hold of it. For a short moment, Moore himself began to doubt it. Blanshard agrees with Moore's critics. He finds it hard to verify this non-natural quality of goodness and thinks "that goods and bads are more firmly rooted in human nature than the ideal utilitarians would admit." Unwittingly, it seems, he thus appropriates a positivistic requirement, that of verification. He believes that the fulfillment of human desire enters into or supplies in whole or part the very meaning of goodness.[43] He thus commits what Moore calls the naturalistic fallacy, and he commits the very sin for which he reproaches the emotivists—being "careless," or too modest, in his analysis. He is content with the Socratic method of pointing to varying examples of value and bringing to light what they have in common. "This is regarded by some present-day analysts as too crude a method; for it is possible, they say, to find a set of characters that is always

present when goodness is present and yet is not strictly what goodness means." Blanshard suggests that "When analysis reaches this stage it has become so refined as to be self-defeating....A triumph of precise and lucid superficiality."[44] Goodness, he holds, is not a simple quality but a complex of characters of which the word is merely the opening gate. It consists of two components, satisfaction and the quality of that satisfaction, fulfillment.[45] "Enjoyment is not all there is to goodness....but it is so essential to any experience we call good that if it vanishes, the value vanishes with it."[46]

Blanshard contents himself with a psychological characteristic of value rather than analyzing value itself. He takes, as do so many naturalists, the thermometer for the weather. As to fulfillment, "in the mind of a great thinker we have a richer fulfillment of the faculties that make us men. In respect to his intelligence Socrates is more of a man than we are....The power, the need, the desire to know...is a defining mark of human nature."[47] The more we fulfill this definition of man, the better men we are. An experience that is intrinsically good, then, must first satisfy and second fulfill.[48] Pleasure without fulfillment is hardly possible, while fulfillment without pleasure is valueless. Blanshard formulates clearly his commission of the naturalistic fallacy: "To fulfill and satisfy what nature prompts is not only good; it is what goodness means."[49] In thus defining goodness, Blanshard says he defines duty as well. Duty is the voice of our own nature, the imperative of our own reason.[50] "Nothing is good but consciousness, and consciousness in the joint form of the satisfaction and fulfillment of impulse."[51] Goodness consists in the fullness of life, in the fulfillment of human nature. "To be moral is in the end to be natural and reasonable and sane."[52]

While Blanshard's characterizations of the impasse in ethics is noteworthy in its precision and conciseness, his "way out" is the old rational naturalism that Moore characterized as a fallacy. Naturalism degrades ethics into psychology, as Blanshard himself implies. While he is correct in his critique of deontology, he does not supplant its analytic, and hence intrinsically meaningless, procedure. What difference does it make whether "right" or "good" are primary if neither is precisely defined? He is also right in showing the absurdity of the emotivist theory, "ingenious" as it is, but "somewhere gone off the track," like so many analytic theories in the past. But he is incorrect in his criticism of G. E. Moore. The solution of the problem of ethics lies in defining "good" in the way begun by Moore, which is neither naturalistic nor incomprehensible. The Moorean alternative is not really simplicity or analyticity of definition, but syntheticity or analyticity. A synthetic definition could be created by generalizing Blanshard's "solution" and speaking, not of a specific goodness as he does—moral goodness, which is the fulfillment of human nature—but of goodness in general, as the fulfillment of the intension of anything. In terms of this definition, which is logical rather than naturalistic, Blanshard's definition would become a special case, namely that of moral goodness.

Blanshard's solution thus is ethical rather than axiological, and in this respect he commits the moral fallacy. Moreover, he commits the fallacy of method. In *Reason and Goodness* he states that he cannot accept Moore's theory because it

> makes goodness too abstract. It draws too sharp a line between goodness and good-making characteristics. In insisting that nothing that makes the good man good, or the good dessert or person or sensation good, shall enter into their goodness, that this quality is something sharply distinct... this account is introducing a division that exists only in theory, not in the facts.[53]

The distinction between the quality of goodness and good-making qualities cannot be found in the "facts" precisely because, and in so far as, it has not been theoretically elaborated; for, as will be shown in greater detail, empirical verification presupposes a theory to be verified. Formal axiology takes precisely the Moorean distinction as the foundation of its theoretical framework; and, in the light of this, it then accounts for the "facts" of moral life, that is, values.[54]

The same lack of methodological distinction is found in another suggestive survey of contemporary value theory, that of Thomas Hill. Hill thinks that "as the situation of moral philosophy now appears...the basic assumptions of Moore's current theory hold more promise than those of any other for providing the essential elements of a foundation upon which a generally acceptable moral theory might be built." Hill is explicit on the character of such an ideal theory. The special merit of Moore's theory "lies on the one hand in its superior quality to interpret coherently our actual moral experience and on the other hand in its capacity to express in its own terms the best insights of the other theories."[55] Moore's theory, in other words, is more systematic than the other theories in two respects: (1) in its coherent interpretation of moral experience and (2) in its coherent interpretation of interpretations of this experience.

Hill comes to his conclusion through an analysis of the content rather than the form of Moore's theory. He regards it as a kind of synthesis of the most positive features of the other ethical theories. It

> comes nearer to giving a balanced expression to those claims of value experience which critical consideration of other theories has brought to light than any of the other theories. It recognizes that value is not a sensory property but sanely insists that it is not therefore mere emotion. It distinguishes value from that which has value but refuses therefore to define it in circular fashion in terms of someone's attitude toward the valuable. It acknowledges that value stands in a number of significant relations but rejects the identification of value with any of these and insists that value has its locus in valued experiences themselves and not in any relation of

> theirs to anything else. It asserts that value involves obligation but clearly perceives that this is simply an obligation resting upon persons and not a special kind of existence or even a claim upon existence. It observes that many different kinds of experience have value; but, refusing to identify with any or all of these, it stoutly maintains that the value of any object is a characteristic that results from all of the other properties of that object. Finally, it contends that good has a clear and intelligible meaning but that this meaning instead of being something else is just the unique property of good itself.[56]

While all this is true of Moore's theory, it is only one half of the story. Hill, discussing only the material superiority of Moore's theory, misses the reason for this superiority. This lies in the formal rather than the material characteristics of this theory: the relation it suggests—although never clarifies—between natural descriptive and non-natural valuative properties. Hill enumerates this feature as one among many others, but he misses the specific significance of the theory. Although he recognizes and describes the superiority of Moore's theory and the corresponding inferiority of the other theories, he does not make clear in what, essentially, consists the superiority of the one and the inferiority of the others. Hill calls Moore's theory a realistic theory. But its superior synthesizing power in no way stems from its material aspect of realism, but from its formal aspect of greater generality—of dealing with fact and value as terms of a logical relation,[57] even though the exact nature of this relation is not recognized[58]—rather than as hypostatized entities or even as properties of things. And the inferiority of other theories does not lie in their material aspects of being psychological, deontological, phenomenological, and the like, but in their being specific rather than general and, as philosophies, being more limited than Moore's. Hill disqualifies these theories because of specific inadequacies, but he does not analyze either his disqualifications or his approbation. He does not evaluate his evaluations of these value theories.

What makes Moore's theory superior is, precisely, that Moore does not give the term "good" any specific meaning.[59] This is what enables Hill to apply Moore's theory to the other theories, all of which do give the term a specific meaning. Moore's theory is more formal. It is on a higher level of discourse than the other theories discussed. It deals not with things that are good but with the predicate "good" as such. It is meta-ethics rather than ethics. Hill's failure to consider this formal rather than material difference between Moore's and other ethical theories—in line with the general practice in ethics—made his own attempt to construct a moral theory on the basis of Moore's "prolegomena" something of a failure. The practical part of Hill's *Ethics in Theory and Practice*[60] is in no way different from that of other ethics texts and has no coherent connection with Moore's theory.

Neither Hill's nor any other extant surveys of ethical theories supersede methodologically their subject matter. They are analytic enumerations but not synthetic constructions. They choose as their own point of view one of the theories they discuss. Theirs is not a "way out" of the impasse in ethics but rather a way into it. They do not break up ethical argument into primary qualities in accordance with a higher logical system.[61] They merely rearrange the secondary qualities they find. Theirs are useful summaries, not new departures. They are not critiques in the sense of Kant or Galileo, or even of Moore, since they lack the vision of a new science. They are collections of ethics, not interpretations of ethics in the light of metaethics.

Formal axiology is at least a metaethics.[62] For this reason the axiological fallacies it provides as instruments of critique are nothing but expressions of the logical levels of axiological thinking, the orders of value reason. They indicate clearly the confusions, as well as the distinctions, made in the use of the levels of value language.

G. E. Moore both initiated the critique of value theories, in terms of his fallacy, and had the vision of a science of values—in terms of which, alone, the philosophical procedure in axiology is fallacious. He was not, however, clear about his own method, especially, the meta-ethical nature of his procedure: that his was a discussion about ethics, not an ethical discussion. He committed the moral fallacy throughout. He did not realize that a science is always on a higher logical level than the preceding philosophy—on the level of variables in terms of which the concepts of the preceding philosophy become logical values. I hold that "good," in a science of values, must be that variable the logical values of which are axiological values. Moore was not aware of the levels of value language, the knowledge of which is yet the indispensable tool for the creation of any science of value. We must, therefore, in the next two chapters, first examine these levels and then crystallize the methodological core of Moore's contribution.

Two

THE LEVELS OF VALUE LANGUAGE

The greatest art in theoretical and practical life consists in changing the problem into a postulate.[1] Goethe

At present, no language of value exists in the sense in which mathematics or, to speak with Tobias Dantzig, number, is the language of science.[2] Rather, a variety of value languages exists, and it may well be doubted whether there is any systematic relationship between them at all. Yet, if the scale of axiological cognition is more than a metaphor, there must be a way in which we can systematically interrelate the theories mentioned. That is to say, the higher they are on the scale, the higher they must be in empirical and systematic import. In this chapter, I will further refine the scale and develop it into a methodological structure so that, rather than measuring value theories, these theories become embedded in it as their matrix. I develop, in other words, the scale into a theory of value theories—a meta-axiology. From an analysis of what value theories are, I now proceed to a statement of what they ought to be. In such an endeavor, some theories that have no value for the cognitive understanding of value, such as the non-cognitivist, will fall by the wayside. The absolute zero point of the scale will become what it is—of zero importance for value. Theories at the other end of the scale will assume a greater importance for value; they will be more fully examined, and their nature as science will be elaborated.

The language of science is multi-dimensional; it rises from simple description of factual situations through generalizations in empirical sciences to the mathematical accounts of reality in fully developed sciences, such as physics and astronomy. Each layer of language represents a different level of analysis. On level zero is the undescribed situation. On level one is the empirical language that describes the situation, the language of fact. On level two is the generalized language that analyzes the empirical language. Thus, a physician telling colleagues about the symptoms that a patient has, as described in everyday language, relates them in an entirely different language bristling with general concepts, mostly of Latin and Greek origin, of which the patient knows nothing. The physician's language is on the second level; it restates, in terms of generalizations, the empirical language and refers to it. There is no third-level medical language, unless it be Greek or Latin itself as a self-contained system containing the medical terms. But these languages, while containing these terms, lack the relations between the terms that correspond to the relations between the referents of the terms in reality. If the symptoms of human sicknesses were related to one another like the grammar of their terms, medicine would be an "exact" science. Whereas physiological and pathological phenomena, so far, have eluded systematization, physical, astronomical, and other material phenomena have not. The physicist, in addition to learning to observe and relate empiri-

cal situations, must learn a language, namely mathematics, that is empirically foreign to him—people don't speak algebra—and which, as such, has nothing to do with physics. Mathematics is a purely formal system of relationships which happen in part to correspond to relationships between physical events. Experiments and observations sometimes confirm that physical events, thought of as standing in the same relationship to one another as the numbers of certain equations, actually do stand in such a relationship. The numbers then stand for classes of such events signified by certain variables of which the corresponding events are values, not in a formal, but in the spatio-temporal context of the science in question.

To take a classic and simple example, the purely mathematical relation $x^2/y^3 = 1$ was interpreted by Johannes Kepler as signifying $T^2/D^3 = 1$, where T is the time of revolution around the sun and D the mean distance of a planet from the sun. The second equation is an application or value in the sense mentioned of the first. These values of the pure numbers arise by interpreting the pure number in terms of certain dimensions—space, time, and weight. They thus become not pure but dimensional variables whose values, in turn, are the actual quantities for the individual planets, for example T = .241 earth-years and D = .387 earth-distances for Mercury. They are the actual measurements of the physical phenomena. Cube, square, and division as such have nothing to do with planetary motion. Yet, once the normativity of the purely formal relation for the physical phenomenon is found, the whole complex of related formal configurations opens up. The above equation led to Newtonian and finally to Einsteinian-Riemannian equations of great complexity and scope.

As guiding physical research, experimentation, and prediction, the mathematical pattern may be regarded not merely as referring to the physical realm but as normative for and creative of it. In being a self-contained formal system, mathematics is a storehouse of conceptual relations from which physicist choose when their empirical description of the situation and the generalization of this description have reached the point at which even technical language is incapable of leading them on to more precise accounts of the interrelationship between the generalized concepts. At this point imagination must leave the empirical and its abstractions, leap into the realm of the purely formal, surrender its own spontaneity to the machinery of the calculus, and accept its results without immediately knowing what they empirically mean. In this sense, for Galileo, mathematics was the logic of discovery.[3]

Scientific language, thus, consists of three levels: the empirical (which describes situations), the general or technical (which refers to the empirical), and the normative or formal (which is self-contained, independent of any empirical situation, and capable of analyzing both the empirical and the general language in its own terms).

The world of value is at least as complex as the world of facts. There is no reason why it should not also require a hierarchy of languages.[4] If value exists in the world, then it must be in situations, either in objects or in subjects, or in

relations between them, either in overt actions or covert motives, in ordering thoughts, or in the language itself of situational agents. Wherever and whatever value may be, it must be somewhere somehow and discoverable either by or in thought, that is, language. Taking our clue from the language of science, there ought to be on the first level an empirical language which describes situations from the point of view of value, whatever this may be. Since, at this level, there is no norm defining the value realm systematically, that is, in terms of an independent conceptual scheme, any assertion as to what constitutes the value character of a situation may pass—pleasure, choice, preference, interests, satisfaction, approval, purpose, harmony, utility, fittingness, growth, sympathy, or whatever else. Also, any statement as to where value is to be found will be acceptable—in the object, the subject, the situation as a whole—and where in the object or the subject—outside, inside, in motives, in attitudes, in thoughts, in language, and so on. But none of these terms has systematic import. Depending on the ingenuity of the constructor, empirical descriptions may be elaborated—and elaborate—but will stand beside each other, like trees in a forest, with the wood itself not visible. Some of these languages may not look empirical, for example, when they analyze language itself, namely the language spoken in the situation. This language is like all other elements mentioned, a situational constituent. Thus, when "*x* is good" is asserted to mean "I like *x*," it is asserted that whenever a person in a situation says "*x* is good" he or she means "I like *x*." This analysis of what people in situations say and how value is found in what they say is still an empirical, that is, a first-level, analysis of the situation.

The situation itself has levels, beginning with the purely factual floor on which overt actions and expressions occur, level zero. A sub-situational level of covert motives and attitudes gives rise to these actions and expressions. On a supra-situational level are judgments about the situation. These may be called level minus one-half and level one-half, respectively. Empirical analysis may shuttle back and forth among these situational levels, analyze the facticity of a situation, then delve under the surface for the corresponding motives or rise above it for the corresponding judgments, and it may interrelate all three. But withal it is empirical analysis and on the first level; or, rather, it ranges from level one-half, the analysis of situational motives on level minus one-half, to level one-and-a-half, the analysis of situational judgments on level one-half, with level one, the analysis of the overt facts of the situation itself, in the middle. The situational analyst may glide down into level one-half, speaking as an agent in the situation itself rather than as its analyst on level one.

Second-level value language analyzes and elaborates concepts, including those of first-level language. It is a kind of meta-language to level one. Thus, out of the value-fact of purpose may be developed a language of "purposive values" or a full-fledged system of teleology, out of the value-fact of pleasure a "hedonic calculus" or a "hedonistic axiology," out of the value-fact of interest a "general theory of value," out of that of choice a "judgmental function," and

out of that of preference a "logic of preference." Out of situational value language, with emphasis on the subjective matrix, may be developed an emotive theory of language or, with emphasis on the sign character of language, a semantic interpretation of value. There may be subjective, objective, or relational value theories. In short, every situational element may serve as foundation for an empirically systematized value language. Each of these represents another empirical analysis, and axiologists ought to recognize in the various situational elements mentioned the corresponding literature built upon them. Although such languages are more general than first-level empirical languages, they share with them the arbitrariness of the determination as to what constitutes value.

On the third level, finally, we ought to have independent formal structures of systematic relationships capable of defining lower level concepts in systematic terms and ordering the total realm of value—ethical, aesthetic, psychological, social, religious—in a way similar to that in which mathematics orders the realm of facts. There is, so far, one such formal axiology, but any number is theoretically possible.

A formal axiology need not be constructed in explicitly logical terms; it could be established in semiotic or mathematical terms—either of Euclidean geometry as in Spinoza, or non-Euclidean, as in Henry Lanz[5]—or in terms of any other system. No matter what the system, it must, in the last resort, be based on formal logic; and its axiom must be an identification between value and a systemic element. It must give "value," as axiomatically defined, both systematic and empirical import. It must be isomorphic with the realm of value phenomena. It must be a formal system of axiology whose variables—"good," "bad," "ought," and so on—are applicable to specific value dimensions—ethics, aesthetics, economics, psychology, sociology, religion—where they appear as "values"—"moral good," "beautiful," "expensive," "satisfactory," "efficient," "holy," and the like—which in turn serve as dimensional variables for certain specific value phenomena, just as do "D" and "T" in Kepler's third law for specific physical phenomena.

1. First Level: Empirical Value Language

Empirical value language is the description of value experience and value phenomena in terms of everyday language. This is a large part of what is traditionally called "Ethics." It suffers from two shortcomings: (1) the indefiniteness of the empirical realm of morality, and (2) the vagueness and arbitrariness of the empirical concepts abstracted from that realm.

A. Indefiniteness of the Moral Realm

Since, at this stage, we have no principles for defining the realm of morality, it is impossible to decide what are and what are not moral phenomena, and what

are the grounds on which any phenomena should be called moral and thus be assigned to the subject-matter of ethics rather than that of some other discipline. If we think of situations and ask ourselves whether or not they are moral situations, we are at a loss for criteria by which to guide our judgment. Think, for example, of a child snatching a piece of candy behind his mother's back. Then think of Hitler declaring war on America. Somehow, we feel, both are moral situations. But we cannot put our finger on the differentia that they have in common. Equally divergent and yet similar situations are endless. Here is Jesus hanging on the cross and forgiving his enemies, and here is a fetishist who loves buttons. Here is the sign saying "Lidice," which is all that is left of a Czech village, and here is a stop sign. Here is a soldier shooting the legs off an enemy, and here a medic rushing to restitute or restore these legs to that same enemy. Here is a parliament discussing public housing, and here a rat catcher laying poison for the rats. Here is Wolfgang Mozart, a most lovable man, and here Don Giovanni, his creation, the epitome of satanic wickedness. Are any of these actual or fictional situations moral, belonging to ethics? If so, what do they have in common and how are they interrelated? What is their relationship to value in general? How about other situations that have to do with value but do not belong to ethics—the price of a cow, the pricelessness of a Rembrandt, the love of flag and fatherland, the love of God, the beauty of a mathematical proof, and the justice of a trial? All these things, we vaguely feel, have to do with value, but neither our language nor our experience seems to supply the connection. What has the price of a button in common with the valuation of the fetishist, and both with Lidice or the love of God? Merely mentioning all these in the same sentence seems a juxtaposition so arbitrary as to be frivolous. To find a connection in the variety of all these and untold other phenomena—moral, economic, metaphysical, religious, aesthetic (all having to do with value)—we cannot, it seems, remain on the level of empirical language and its concepts.

B. Vagueness and Arbitrariness of Empirical Value Concepts.

The second shortcoming of first-level analysis is the vagueness and arbitrariness of the empirical concepts used in it. Since these concepts are abstracted from the infinite and indefinite variety of phenomena, they cannot contain principles for defining the empirical realm or any of its sections. All they can do is, in a more or less arbitrary manner, classify and distinguish the phenomena. Even if someone would sharpen this terminology to the highest possible degree (as has been done by Albert L. Hilliard for hedonism[6]), any system built on these concepts would suffer a double inadequacy. The enterprise of systematization on the empirical level is inherently arbitrary and possible only, as Kant has shown, on the assumption of an inherent logical orderliness of empirical nature, designed especially for the human mind—the assumption "that nature specifies its universal laws into empirical laws in accordance with the forms of a logical system on

behalf of the faculty of judgment."[7] This assumption of natural purposiveness alone gives the possibility of empirical system, "the conformity to law of the contingent as such."[8] Granted the justification of such an assumption, either the Kantian or some other, a second and even graver difficulty remains. No ground justifies why the moral realm should be ordered in terms of one empirical concept rather than another. There is no ground why it should be in terms of pleasure rather than pain (think of William James's ethical principle of greatest resistance, or Arthur Schopenhauer's resignation of the will), or of reason rather than unreason (think of Thrasymachus and Friedrich Nietzsche), or of happiness rather than unhappiness (think of the saintly ecstasies of martyrs), or of virtue rather than vice (think of Niccolò Machiavelli or imagine a future theologian going the Niebuhrian road all the way and declaring that, since man is originally and irretrievably sinful, he may just as well make the best of it). This is in line with the famous limerick,

At Ipswich, when Niebuhr had quit it
A young man said: "Ah, now I've hit it.
Since nothing is right
I shall go out tonight
And find the best sin and commit it."

No ground mandates that or explains why a system of morals should be based on any one of these concepts, or on any of the other concepts proposed in empirical ethics: utility, self-realization, fittingness, loyalty, sympathy, growth, process, interest, satisfaction, choice, obligation, approval, agreement, or any combination of such concepts. "Obligation" is either a naturalistic concept or else, when called "moral," begs the question with which we are concerned, namely, What is moral? Any system built on any such concept or combination of concepts is contingent, empirical, and naturalistic. However we may call it, it is on the first level of analysis. No amount of mixing of such concepts—not even occasional dashes of "ought," particularly when used synonymously with one of these concepts, such as "obligation"[9]—can perform the magic of transmuting the mixture into a higher species. It remains on the first level, no matter what the label on the retort; even if it reads "non-natural," the content is still natural.

In addition to the concepts so far used in ethics, there is practically no empirical concept having to do with human situations that could not be added to the list. Not only could someone write an ethics of honesty, integrity, kindness, generosity, slyness, superiority, humility, and similar obviously ethical concepts, but also of seemingly non-ethical concepts, such as race, health, hunger, instinct, intuition, and the like; indeed, a program could be written for yet unwritten kinds of ethics. But no one could ever come to the end of such a program, let alone write the infinity of possible ethical systems. All these sys-

tems would be, and are—insofar as they have been written—arbitrary and extend one aspect of moral reality over all the rest. They abstract one aspect of empirical reality and hypostatize it at the cost of all the rest.

This hypostatization may be empirical in two senses. First, it may be empirical in the sense just discussed, the extension of one aspect of reality over all the rest, a fallacy of systematic procedure that may be compared to the fallacy of the illicit major in the syllogism. Or, secondly, it may consist in the extension of this one aspect not merely over all empirical reality but over all reality, both empirical and non-empirical. In this case the aspect assumes the features of a metaphysical or ontological system. But such hypostatization, by fiat of the ethicist, delivers the empirical from the clutches of the natural as little as the "abracadabra" of the medicine-man delivers, say, the native of the Zambezi from elephantiasis. On the contrary, the arbitrary features of the empirical become in this procedure enlarged to monstrous dimensions, indeed, to infinity. G. E. Moore makes the following comments about this occurrence:

> The region of the incompletely known is the favorite abode of a metaphysical monstrosity. In plain language, where facts are not completely understood, some short-sighted metaphysical theory is generally introduced as affording an easy road past the difficulties which stand in the way of thorough investigation.[10]

The discrepancy between the system's claim to validity and its justification is in the proportion of infinity to zero, a proportion which is, even mathematically, undefined and strictly senseless. But it gives the ethicist a measure of self-assurance that no naturalistic system can match, simply because naturalism's arbitrary character is written on its face, whereas in the metaphysical system this same arbitrariness is submerged in the ethicist's unconscious and thus, like any complex, appears in exaggerated behavior. Metaphysical ethicists when, as is so often the case, completely uncritical of their procedure, go God one better, so to speak: they do not merely create an earth out of heaven, but a heaven out of earth. In this heaven they find laid up the treasure they supposedly cannot find in this vale of despair, and they are entirely unaware of the fact that the whole equipment of his heaven they first had to lug up from below. The same is true of an ideology.[11]

For this reason all ethical writers on higher levels of analysis have classified metaphysical and ontological value systems alongside the empirical—such as Kant in his equation of empirical and metaphysical dogmatism, G. E. Moore in his extension of the naturalistic fallacy to metaphysical ethics, Jean-Paul Sartre in his characterization of *mauvaise foi* as including reliance on all systems (whether empirical or metaphysical) which through the mirage of false security seduce people to abandon the onerous job of becoming themselves and present them with an excuse for resigning from humanity. In the last instance,

the lack of definition in empirical ethics leads to lack of definition in the ethical experience, the agents of ethics, human beings themselves. An interesting verification of the essential identity between naturalistic and metaphysical dogmatism is the heavy traffic over the border of the two realms, for example, of converted communists into Catholicism and converted Catholics into communism.

Through the mixture of naturalistic methodology with supernatural sanctions, the metaphysical ethicist becomes a preacher rather than a thinker and thus, to this degree, gives up the philosophical enterprise. Unable to transcend the empirical, yet loudly protesting that they do, their arguments, far from being sublime, are earthy, and often crudely so; they either try to scare or to bribe us into morality. Instead of illuminating us from above they radiate from within the empirical realms, and the result is more often a burn than an elucidation. This is true of some of our present prophets as well as of many of the past. H. A. Prichard made these comments:

> We have only to consider the history of Moral Philosophy. To take obvious instances, Plato, Butler, Hutcheson, Paley, Mill, each in his own way seeks at bottom to convince the individual that he ought to act in so-called moral ways by showing that to do so will really be for his happiness. Plato is perhaps the most significant instance, because of all philosophers, he is the one to whom we are least willing to ascribe a mistake on such matters, and a mistake on his part would be evidence of the deep-rootedness of the tendency to make it.... Plato really justifies morality by its profitableness.[12]

Compare Schopenhauer's scathing remark on Kant who, after arguing sublimely for virtue as its own reward, then offers a sop to the honest servant in the form of happiness. The epistemological failure of this level of ethics appears, from the higher level, as a failure of ethics—not merely formal, but material: it makes the ethics unethical. Definition in ethics becomes an ethical demand, and a mistake in ethical thinking a failure in higher level morality.

Empirical concepts give no definition of the moral realm. They do so neither directly nor indirectly. It has sometimes been held that what I analyze—pleasure, satisfaction, and the like—is indicative of the moral phenomenon: whenever a moral situation occurs it is accompanied by pleasure, satisfaction, and the like. This assumption can be given little credence as long an we are ignorant about the moral phenomenon itself. But even granted the correlation in question, an analysis of the accompanying phenomenon would only be as good as, say, an analysis of the weather by means of the thermometer. It would only catch one aspect of the reality in question A whole array of additional instruments is needed to catch more of its aspects, and even then no one could be sure to have caught the essence of the phenomenon itself. One would again be confronted with the old difficulty of arbitrariness. Why should a particular indicator of morality, say, pleasure, be more reliable and indicative than any

other? Actually, it has never been shown why and in what respect and with what necessity—or even empirical causality—pleasure, satisfaction, and the like should accompany morality.

Empirical concepts not only give no definition, either directly or indirectly, of the moral phenomenon, but they cannot even themselves be precisely defined. Precise definition, by definition, is non-empirical. Therefore science, insofar as it uses precise concepts, is not generalization but invention—as was already held by Kant and has been reaffirmed in every generation since.[13] Science consists, agreeing with Bertrand Russell, "largely of devices for inventing concepts having a greater degree of precision than is found in the concepts of everyday life."[14] The empirical concepts of ethics, therefore, cannot be precisely defined. They represent secondary qualities of moral phenomena and are as irrelevant to these phenomena themselves as are the secondary qualities of natural phenomena. I feel pleasure or I feel satisfaction, and scholars interested in ethics rather than psychology may well ask, "What of it?" But suppose they find these feelings relevant and give up their quest for precise definition; still they would never, even empirically, be able to define these concepts *within the realm of ethics*. To define satisfaction or pleasure, they would have to move into the fields of other empirical sciences such as psychology; and again they would be lost in a welter of confusing empirical determinations. The old dilemma would again present itself. Psychology, as little as any other empirical science, as Kant showed, is unable to supply principles for the definition of morality, let alone its normativity. Such principles can only be applied by analysis *a priori*, that is, by analysis of principles of thought itself.

But—and here we come to the perhaps most typically first-level attitude—investigation of the moral phenomenon and its principles *a priori* is in many cases decried from the outset as "a bad job," an unpromising and impossible task, on the simple assertion that moral phenomena are unanalyzable and hence to be known only by immediate intuition. This is not the position of G. E. Moore, who thought that moral phenomena, namely that to which the term "good" refers, are definable. Insofar as their goodness is indefinable, the necessity for intuition does not commit ethics to intuition. On the contrary, it commits it with so much more definiteness to correct principles. The supreme principle only, the axiom of scientific ethics, namely, goodness, is based on "intuition," but this intuition is not psychological but logical. In such cases, I commit myself to first-level analysis to discuss the moral experience exclusively in terms of my intuition and feelings. This attitude, if called philosophical, which seems a contradiction in terms, is of the same kind of philosophy as similar attitudes have been in the sciences where for a long time, words, supposedly ultimate, took the place of analysis. Thus, "intuitive" value has the same systematic position in axiology as phlogiston had in chemistry, or ether in physics, or, substance in dogmatic metaphysics. This renunciation of analysis in ethics has, from a meta-ethical point of view, an ethical aspect: renouncing ethical analysis on the basis of "intuition" is a failure of ethics itself; it prohibits the use of reason in ethics. This is

as much a failure of ethics as was the building of natural or metaphysical systems, supposedly of ethics. What was achieved there, by building elaborate structures to prevent further inquiry, is achieved here in an even simpler way, by prohibiting intellectual curiosity from the outset and on principle. But, setting aside the specific meta-ethical implications of this attitude, and regarding it merely on its epistemological face value, the least that must be said is that the prohibition of analysis is not a fruitful basis for analysis.

In summary, then, first-level analysis is inadequate and should not be called ethics anymore, nor should it be taught as such, except historically. Rather, ethics should be called what we call second-level analysis or meta-ethics, as is already done by an increasing school of writers who follow G. E. Moore in his emphasis on the analysis of ethical propositions and ethical philosophies rather than of moral situations. Of note is the curious case of Bertrand Russell. He believes, with Moore, that the subject of ethics is "not practice but propositions about practice." Yet, he thinks that "whatever objectivity the concept (good) may possess is political rather than logical." In other words, an empirical foundation of ethics will give ethics more objectivity than a formal one. The "aim" of ethics, by which I mean its subject-matter, is second-level analysis (propositions about practice). Yet, this aim can be reached better by first-level analysis (political concepts) than by third-level analysis (logic). No wonder Russell was never "quite satisfied with any view of ethics that I have been able to arrive at, and that is why I have abstained from writing again on the subject."[15]

Let us now turn to the next level.

2. Second Level: Analysis of Empirical Value Language

By analysis of empirical value language I do not mean analysis of the language spoken in moral situations but analysis of the language used by ethicists about such situations. I mean analysis of empirical ethics or analysis of ethical language—the language used in ethics—as against the analysis of moral language—the language used in moral situations. The distinction will be important in the first type of analysis on the second level. A number of possible analyses are on this level, of which five seem the most important: pragmatic, semantic, logical, epistemological, and mathematical value analysis.

A. Pragmatic Analysis

By pragmatic analysis I mean an analysis of ethical language in terms of the situation in which that language occurs. This kind of analysis is, in one respect on a higher level than the empirical language that it analyzes; but in another important respect, it is on the same level. For what it analyzes is not really language, that is, language as a logical or semantical structure. Rather, it is language as a symptom of the situation, as a social instrument,[16] as a tool of communication. It analyzes a certain aspect

of the moral phenomenon itself, its language, and not the language about it—moral, not ethical language, in my terminology. In this respect, therefore, Charles L. Stevenson is incorrect in comparing the relation of his analysis to ethics with that of the relation of scientific method to science.[17] If we compare levels of scientific and ethical language, the natural phenomenon, on zero level, would compare to the moral phenomenon; ethics, the first-level, to description of the natural phenomenon in empirical language; metaethics to science as formal analysis of first-level description, or science proper; and meta-meta-ethics to the formal superstructure of science, mainly mathematics. The account of the method of science is philosophy of science, or that discipline which describes the entire hierarchy. But Stevenson does not do this in the field of ethics. His main concern is to analyze moral language, that is, the language spoken in moral situations. Insofar as this language is regarded as an aspect of these situations, it is part of the moral phenomenon itself, that is, of the subject-matter of first-level ethics.

Stevenson's enterprise, then, in this respect, is first-level analysis, or what we called ethics. In another respect it is meta-ethics. Language, after all, is language and as such on a higher level than the non-symbolic elements of the situation. No matter what its pragmatic use, it is not empirical reality, but represents empirical reality—it is on a higher level than the situation in which it occurs. Or, to combine its involvement in the situation and its representing it, it is *empirical reality itself on a higher level*. Its analysis is on a higher level than the analysis of the situation in which it occurs. It is analysis of the empirical situation through the medium rather than in terms of one of its aspects. From this point of view pragmatic analysis may be called second-level analysis, but it is an analysis of language, not as such, but as a means for the analysis of the situation in which it occurs. This kind of analysis is a hybrid between the first and the second level; it analyzes the empirical situation through a specific analysis of its language. It is, so to speak, on level one-and-a-half.

Such analysis could conceivably examine the totality of moral reality if moral language were used as focus of the totality of that reality and not as focus of just one aspect of it. In moral language, moral reality could be found wholly contained, as the reality of a star is contained in the spectrum of its light. But to understand language in such a way and, through its analysis, to be able to analyze reality itself as moral, would presuppose a language that contains criteria for determining the moral character of a language. But this, we have seen, only a third-level language, a meta-meta-ethics, can do. Pragmatic analysis, as analysis of situational language, is, however, scarcely a meta-ethics. If this is so we are back at the old dilemma of arbitrariness, of having no principle whereby to define the moral phenomenon as such, which appears, this time, in the form of language. We are, also, back at the second difficulty, that of selecting one aspect of the moral phenomenon, again language, rather than any other, as representative of morality.

There is no ground why, of all the aspects of the moral situation, we should select just its language. Or, to state the matter conversely and thus lift it to the second level of analysis, why, of all things, should language be analyzed in terms of the

situation in which it occurs? Why should it not rather be analyzed in terms in which language is usually analyzed, namely logic or, perhaps, semantics? If this question be answered by the pragmatist by saying that only in this way can he catch the moral characteristic of language, we would have to object that this is precisely the point to be established. Pragmatic analysis begs the question. Rather than establishing the moral character of a certain type of empirical language, it assumes this character and gears its analysis in accordance with this assumption. It thus overlooks that it suffers from the same shortcoming as all first-level analysis, namely, the inability to define its subject matter as moral. It cannot, then, use its lack of definitory ability as justification for its procedure. Rather, its procedure is equally arbitrary as first-level analysis, and a good case can be made for asserting that it is even more so. Charles L. Stevenson, for example, analyzes situational language in terms of a certain emotion of speakers, their quasi-imperative attitude of demanding approval. This is a very specific kind of emotion. But a situation is a complex structure of elements, of which this particular attitude is only a minute part.

To our first question, why language should be analyzed in terms of situation, we must now add a whole series of further questions. Supposing that language should be analyzed in terms of situation, why should situation be analyzed in terms of the speakers? Why not in terms of the environment of the situation as a whole? And if in terms of the speakers, why not in terms of their wills, or minds, or spirits? If we settle for their emotions, why in terms of one particular emotion rather than another? Finally, why should the result of this multiple arbitrary distillation be called morality? Pragmatic analysis is nothing but, by a roundabout way, a return to the empirical determinations of the first level, with emphasis on the aspects of approval and agreement rather than those of pleasure, satisfaction, and the like. We are thus, even though through a formal medium—which, however, the direction of the analysis in question deprives of its formality—back at the analysis of empirical data through empirical concepts. This analysis, not of the logic of what speakers say, but of the attitude in which they say it, is closer to psychology than to logic. Language is used as a kind of barometer or thermometer for what may lie behind it, and what may lie behind it is called the moral phenomenon. Granted that language is indicative of it, it is only one indication of it. We are back again at the first-level difficulty of needing additional indicators for morality, and to the many indicators of that level is now added one more, namely language. Thus we are one more step removed from the moral phenomenon: we use language as indicative of certain feelings and these feelings, in turn, as indicative of morality. We are not concerned with any *a priori* system of which the statements, judgments, utterances, propositions of approval and disapproval, or agreement and disagreement are an organic part, nor with any *a priori* system of which the speakers are a part. At this point, we have no *a priori* principles by which to define the moral realm and have, in this all-important respect, not advanced beyond the first level.

Neither have we resolved the arbitrariness of selecting situational aspects; on the contrary, we may definitely be said to have increased it. Any number of other

criteria for the analysis of situational language could be used. Instead of the speakers we could concentrate, as mentioned, on the environment, or on particular objects in it, or on the situation as a whole, and all this either statically or dynamically. There are at least three additional highly complex analytic possibilities, all of them pragmatic. Once we decide on a pragmatic analysis in terms of speakers, we can choose the speakers as a whole, or their minds, or their wills, or their spirits, or their emotions, or their sympathy, compassion, satisfaction, pleasure, happiness, inspiration, interest, and so on. These analyses would constitute an infinite number of possible pragmatic languages. If we choose just one of these possibilities, we can further specify certain kinds of emotions, pleasures, inspirations, satisfactions, and so on, as integrative principles, in an unending list. We do not have to choose the speakers' inner characteristics such as emotion, reason, or spirit. We can choose their outer characteristics such as their race or pedigree and develop a pragmatic ethics in terms of their titles, or their blue eyes and blond hair. Or we may choose their environmental situations, or aspects of them, and design an analysis of empirical value language in terms of the speakers' economic conditions. These and other pragmatic analyses have been designed and called ethics, sometimes with disastrous effects on humanity. The possibilities for pragmatic value analyses have no limits except those set by the ingenuity of philosophical minds. But all such analyses lack universality and *a priori* principles that would give rules of transformation to the concepts of the language in terms of a higher, that is, non-empirical principle. For this reason, pragmatic value languages fall short of the standard that ought to rule a language of value comparable to that of science.

Ultimately, the reason for this is that the pragmatic endeavor, at least insofar as it is based on the positivistic conviction of the irrationality of value, is forced to return to the Humean dilemma of either trying to explain value by the empirical method supposedly of science, or else doing so in such a way that value will not lose its irrational nature, that is, will not be explained too much. Stevenson intends to apply rational analysis to the irrational or non-rational feature that is value, not for the purpose of clarifying and rationally explaining it, but to show even more clearly its irrationality. This to him is its ethical characteristic. He wants to apply the rational to the irrational, not in order to make it rational, but in order to deepen its irrationality. He wants to show, by a rational procedure, ethics as concerned with non-rational attitudes, rather than with rational beliefs.

If rational methods are used to analyze the non-rational, one of two things must happen. Either the analysis succeeds or it fails. If it succeeds, the non-rational, by virtue of being understood, loses its non-rational character and appears as something rationally explained. In the field of human behavior, insanity was madness to be disposed of by the snake pit or the gallows only a hundred years ago; today it is recognized as sickness, rationally understood and treatable. For Sigmund Freud, the most irrational has its rational explanation and the most nonsensical proposition its symbolic meaning. Why, of all things, should the innocent emotive expressions, expletives, pejoratives, epithets, four-letter words, and all the rest that delight the

emotivists, not have their own rational, indeed logical, frame of reference? Once this is found the positivistic equation of emotive with unscientific would fall to the ground. Supposing that the emotive is the ethical, ethics would then become the science represented by the frame of reference in question. For the time being, the positivists hold that whenever an emotive situation or proposition is explained, what is explained is not the emotive aspect—for that by definition cannot be explained—but the factual aspect. In all such cases, if the explanation is called ethics, "ethics" is reduced to psychology, sociology, and such.

The dilemma is based on the Humean version of the moral fallacy, the confusion of subject matter with method of analysis: the analyst of a fuzzy subject matter must use a fuzzy method. Of course, those who approach a "fuzzy" subject matter, such as emotive attitudes and the like, with a presupposition of fuzziness, that is, the conviction that by definition what they are about to explain is not really explainable, will not be very successful in their explanation. As a matter of fact, the more, by their mental agility, they should progress in their rational explanation of the subject, the more they will draw back and emphasize the inadequacy of their procedure. The more they succeed in their analysis, the more they will emphasize its "failure." Its actual failure will not faze them, for it will only confirm their premise that what they are trying to do cannot really be done.

This was the case with Hume, and it is the case with Stevenson. It explains the peculiarly tantalizing quality of his book. He is committed not to succeed, that is, not to make the emotive too well understood, for that would destroy the thesis of the positivists to which he is committed. He is also committed to explaining the rational part of emotive meaning, for failure here would mean failure of his method. But success here would be dangerously close to success in the concomitant emotive part, which must be avoided. Thus, wherever the semantic part of his method promises success, as in the explanation of "good" in the "second pattern," he hurries to point out the inadequacy of the concomitant dispositional part, which really is the one that counts, dealing, as it does with the non-rational aspect of emotive meaning, and hence with ethics, while the rational aspect is really of no significance for ethics at all.[18]

Stevenson's "first pattern" of analysis says that "'This is good' means '*I approve of this: do so as well.*'"[19] According to his "second pattern" of analysis, "'This is good' has the meaning of 'This has qualities or relations X, Y, Z...except that 'good' has as well a laudatory emotive meaning which permits it to express the speaker's approval, and tends to evoke the approval part of the hearer.'"[20] The part before 'except' is the disposition part. Like Moore, Stevenson is very careful, almost cagey, not to call his "patterns" definitions or to clarify his terms. Consequently, he does not make clear whether and in what respects his theory is semantics or psychology, empirical or non-empirical, whether, for example, "good" and "X, Y, and Z," in the second pattern are empirical properties or logical predicates, whether the emotive meaning of "good" is a pragmatic feature of the predicate "good" or an empirical property of the utterance *g-o-o-d*, and so forth. In one place, however, he

says that his theory *is* empirical.[21] His book, characteristically, lacks a subject index, which adds to the difficulty of orientation. Stevenson does not commit the moral fallacy by the content of his theory, which clearly states the difference between moral and axiological value, just as does Hume. He commits it, like Hume, by his method and by flagrantly confusing subject matter with the analysis of it, especially when he applies an argument about psychology to psychologists.[22]

For anyone who values rational clarity, studied obscurity is frustrating. Combining both the moral and naturalistic fallacy with the endeavor to rationalize the Kantian opposition of "ought" and "is," and yet not doing so in order not to disturb the positivistic thesis, produces a mixture of semantics and psychology that puts ethics into a limbo between the rational and the irrational, the logical and the psychological, the naturalistic and the non-naturalistic, the positivist and the non-positivist. It also complicates the problem of value in three respects: (1) in accepting the positivistic thesis of the irrational character of ethical propositions, (2) in applying rational analysis to this irrationality, and (3) in aiming not at the rational explanation but at the deepening of this irrationality. Positivistic value theory has been called "one of the strangest aberrations ever to visit the mind of man."[23] Trying to bring order into this "aberration" seems only to deepen the confusion.

As a result, Stevenson's system is complex without being rigorous, and of limited applicability. Its examples are trivial. Using his theory to analyze a complex moral situation, for example, the Crucifixion of Jesus, or to analyze a complicated ethical theory such as Søren Kierkegaard's, Kant's, or Plato's, or a work of moral fiction, such as Franz Kafka's *Trial* would be impossible. What Stevenson says about Plato's definition of justice is absurd.[24] On some profound moral issues, Stevenson shows a peculiar blindness, as in his trite analysis of the conscientious objector.[25] Stevenson shows that positivists need not shy away from values. He does not show that they can be profoundly sensitive to them. He successfully eliminates positivistic axiophobia, but he does not establish positivistic axiotherapy or positivistic axiology.

Stevenson's position is a step ahead in value theory in being an analysis of value language rather than of value experience, but it is tied down to the emotivist bias, which prevents it from developing all the possibilities inherent in linguistic analysis. His powerfully mistaken enterprise in ethics reminds us very much of Tycho Brahe's equally powerfully mistaken enterprise in astronomy, as developed in Johann Wolfgang von Goethe's comparison of Tycho Brahe and Johannes Kepler.[26] The feature of emotive meaning in Stevenson's theory that would lend itself to strict analysis of moral phenomena, the semantic or logical one of *meaning*, is underplayed; and the feature that does not lend itself to such analysis, the emotive one, is overplayed. As a result, the whole theory must be said to be a failure. It does not solve the knotty Kantian problem of "ought" and "is." Not only does it never really come to grips with it, it studiously avoids doing so. While rational value theories, such as John Dewey's, cut the Kantian knot by a bold stroke (unable, to be sure, to tie the loose ends together again), Stevenson, in his endeavor to untie the knot care-

fully, becomes ensnared in it and resolves the situation by declaring his predicament a virtue.

No satisfactory account of the ethical is possible as long as one finds its essential nature in irrationality. In the end, the presupposed—irreparable and unobjectionable, indeed, welcome—irrationality of the subject matter will infect the method of analysis applied to it, as if a psychiatrist began his analysis with the conviction that it is really better to be crazy than sane. *If* the positivistic thesis is correct, and *if* the ethical as such is irrational, then the positivistic conclusion is correct that *as ethics* it cannot be rationally analyzed, that such analysis becomes psychology, sociology, and the like. Then a science of ethics is impossible.

If, by contrast, a science of ethics, or even a rational account of it, is regarded as possible, then, to that extent, the ethical loses its irrational character and hence, according to the positivist, its nature as ethics.

What is not possible, on the positivist premise, is rationally to account for the irrational. Either this analysis succeeds and the subject matter is not ethical any more, or else it fails and the analysis was not rational enough. Then, to that extent, on the positivistic premise, it becomes ethics. Either the subject matter loses its ethical character and becomes fact, or the analysis loses its factual character and becomes ethics. In both cases an analysis of ethics is impossible. There can be no ethicists; there can only be either social scientists or moralists.[27]

B. Semantic Analysis

By semantic analysis of ethical or empirical value language, I mean an analysis in terms of the signs or symbols of this language and the referents, the *denotata* or *designata*, of these signs. This analysis is more detached from the empirical material than the pragmatic, taking into consideration not the speakers but what they say. But it is less detached than would be an interpretation of value language in terms of its own logical structure. For language regarded semantically is still part of the situation in which it occurs, even though this situation is now more highly stylized and abstracted, into a pattern of three relations, those between the thinker, the sign, and the referent. Thus, the arbitrariness of selecting situational elements, which attaches to pragmatic analysis, is eliminated. However, when the semiotic language is itself defined in terms of behavioristic psychology, this advantage disappears and the semiotic reverts to the first level. The question remains concerning the relevance of semantic analysis for the definition of the moral—or ethical—character of situational language, that is, the question of arbitrariness in defining the moral realms. This question cannot be solved on this level of analysis, and insofar as semantic analysis is second-level analysis, it suffers from the same shortcoming of definitory arbitrariness.

Semantics is a part of semiotics in general. A semiotic language on the third level that would solve this difficulty is possible. It would have to be a language of semiotic syntactics that would not *refer to* or *analyze* either the moral or the ethical

language, but would serve as *norm for* it such that the empirical language would be subsumed under it. Suppose that a self-sufficient, coherent, and consistent semiotic system exists, accounting for the formal relations among signs. If it were possible to define a certain configuration within this system as the set of rules applicable to the moral realm, that is, as Ethics, and to analyze both the empirical language of moral situations and the ethical language, referring to it in terms of this system in such a way that not only each situation but also each term accounting for it could be assigned a definite place within the system, then the requirements of a third-level language of value would be fulfilled. This kind of language would be different from the semantic language of the second level in not referring to or analyzing the empirical language but serving as norm for it. The empirical language would be subsumed under it—split up, re-arranged, re-modeled in accordance with the systemic pattern, just as the concepts of empirical language are re-modeled and re-shaped (and all but disappear) in the language of science. In the semantic analysis of the second level the point of departure is the empirical language, which is interpreted; but its terms and relations, its pattern as a whole, is not disturbed thereby. In analysis of the third level, the point of departure is the third-level system itself, and the empirical language is nothing but raw material for it. The empirical language is all but broken up in the process, so that the result is unintelligible to anyone but the experts on the third-level language—which means, precisely, that empirical language has been left behind. The procedure to reach this point would be, first, to exhibit a definite system of semiotic syntactics, second, to define some of its axioms and definitions as those of ethics, and, third, to apply the system to moral reality and show that it accounts for the natural relationships of moral situations and for their character as moral. All this may be possible if semiotic syntactics is indeed as genuine and autonomous a realm of thought as its proponents suggest, comparable with, or even superior to, logic and mathematics. As long as the correlation of such a system with value language is not established, all that semantic analysis can do—and this is an important service—is to sharpen value language and by doing so sharpen the observation of moral phenomena. But it can neither stake out the realm of morality nor define it.

C. Logical Analysis

By logical analysis of ethical language we could mean two things, corresponding to the two levels just discussed. We could either mean analysis of value concepts or creation of value constructs. The first would be analysis of value language in terms of some selected fields of logic, the second normative application of the fundamental axioms and definitions of logic to ethical language. The first would be second-level analysis and arbitrary in its intra-logical selectiveness; the second would be third-level systematization and definitory of value language. Here the difference between second-level and third-level analysis appears not only in the selectiveness of the phenomena in moral reality, but also in the selectiveness of the fields within the pattern applied, that is, within logic. When a systematic pattern is applied to a phe-

nomenal realm, it is not sufficient that a limited field within that pattern is selected; the pattern in its fundamental axioms and definitions must have an affinity to the phenomena to which it is applied. The one advantage of applying the system is, precisely, that there is a system, and that its formal relationships can be used to order the otherwise unrelated events. The system must have systematic and empirical import. If merely a small section of the system were used, one that has no intrinsic connection with the whole system, the purpose of system construction would be defeated. The applicability of mathematics to nature rests, precisely, on the fact that the fundamental notion of mathematics, "number," can be given a spatio-temporal interpretation. Thus, if any system is to be applied to value phenomena there must be an affinity between the fundamental notions and relations of that system and the value realm, and not merely an affinity between some outlying regions of the system and some regions of ethics. The difference between second-level and third-level value analysis—between meaning analysis *of* empirical concepts and systematic normativity *for* such concepts—is thus a difference between the application of unessential and of essential configurations within the system applied. For logic, by second-level analysis would be meant analysis of first-level value language in terms of more or less arbitrarily selected sections of logic, and by third-level analysis, the subsumption of first-level and second-level language under the fundamental axioms and definitions of logic.

In this section the first shall be the concern, even though it cannot be discussed without reference to the second. In this section, interpretations are given of first-level value language in terms of some selected field or fields of logic, such as interpretations of value language in terms of a particular relation, say, the relation "better than,"[28] or in terms of moods or modalities,[29] imperatives,[30] and the like. These are selective and hence arbitrary applications of logic to morality and not definitions of morality in terms of logic. Note that logical analysis *deals with* imperatives, but it is not itself imperative (the normative fallacy). Any number of different ethical systems could be established on other logical relations or moods. Indeed, the variety of such systems could be as large as the content of logic itself. Only the ingenuity of system builders could set the limits. Why not, for example, build an ethics on the modality of impossibility, using James's definition of the ethical as the path of greatest resistance? Or on logical subsumption, using C. D. Broad's and others' notion of fittingness? Or, on the relation of contradiction, using it as prototype for the ethic of the nihilist, or on that of contrariety, as prototype of the ethics of the reformer? Or, with Bertrand E. Jessup[31] and others, why not use the notion of relation itself as prototype of a situational ethics? Such systems of ethics would be, and insofar as they have been written are, a great advance in ethical theory. An empirical theory that lends itself to such interpretation evinces its inherent systematic.

Such systems are still arbitrary, even though in a very limited sense, namely, within the system of logic; but using logic itself for the interpretation of ethical language cannot be called arbitrary. On the contrary, it seems the most natural of all interpretations. What is logic for if not the interpretation of language? The intra-sys-

temic arbitrariness exists as long as it is not made systematically clear in which respect and on what grounds the relation, modality, or function selected had to be selected for reasons inherent in the system of logic and, indeed, the nature of ethics. Not only must the logical field selected be a central region of logic and not merely an outlying one, such as the imperative, it must also correspond to a central and not merely an arbitrary region of ethics. The ethical system based on A. P. Brogan's relation is meliorism, but meliorism is merely one kind of ethics among many. The logical relation serving as basis for a system of ethics should be universal enough to include all possible ethical systems rather than merely one. Again, an ethics based on imperatives accounts for only a narrow section of the moral realm. The same would be true of the kinds of ethics envisaged above.

In all, four kinds of arbitrariness are possible in combinations of logic and ethics, in three degrees from greatest arbitrariness to least arbitrariness, in the following order of combinations: (1) of outlying logical fields with outlying ethical fields, (2a) of outlying logical fields with central ethical fields, (2b) of central logical fields with outlying ethical fields, and (3) of central logical fields with central ethical fields. Only the last combination would represent the genuine logical system of ethics: a combination not of selected propositions or selected relations or selected moods or functions with selected moral phenomena and ethical categories, but a combination of logical fundamentals as such with the nature of good. Such combinations would be, for example, a definition of "good" in terms the notion of proportional function or of implication or of some other logical fundamental, such as class-membership, truth-value, or extension and intension. Such a combination of ethics and logic, if it could be brought about naturally and demonstrated as necessary, would constitute a third-level system that ought to fulfill my requirement for the ideal value language, namely, to account in its own terms for all value phenomena as well as all analyses of such phenomena. It ought to do so for the reason that the system would be co-extensive with logical language itself and thus able to account for everything for which this language itself can account.

In this respect, probably, the combination of logic and ethics is more powerful than the other combinations discussed on this level—the semiotic, epistemological, and mathematical. It is true for all these combinations as well that, unless the fundamentals of the system in question are joined with the fundamentals of ethics, the resulting theory is arbitrary, even though this arbitrariness is of a higher kind, an intra-systemic kind, concerning selections from within a system, and thus far less arbitrary than the arbitrariness of the first level, which roams over the whole empirical realm. The requirement of combining fundamentals with fundamentals may be objected to by saying that it is too severe and that there is no reason why a systematic ethics cannot be constructed out of any logical material, just as systematic sciences have been constructed out of any mathematical material, without bothering about how fundamental within mathematics the sections selected are. Any number of unrelated mathematical systems have been and are being used to account for natural phenomena. To mention a few, astronomy uses the calculus, differential and integral

equations, and non-Euclidean spaces; electrical theory uses complex numbers; quantum theory uses the matrix calculus; thermodynamics uses the calculus of probability. All these patterns were selected more or less at random from the whole body of mathematics, with reference solely to the structure of the phenomena to be accounted for. Natural philosophy, it may be held, would never have become a science if it had concentrated on matching only the fundamentals of mathematics with the fundamentals of nature. For one thing, it is and was almost impossible to decide what these are.

It may be conceded that the development of natural science through the combination of mathematical frames of reference with natural phenomena has not consciously proceeded in the manner I demand for ethics. But it may just as well be held that it has. The original application of mathematics to natural phenomena that gave rise to modern science was the insight "that the essence of a material thing was its being *res extensa*"[32] plus the algebraic expression of space in the analytic geometry of René Descartes. It came about after profound reflection on the fundamental nature of thought and on the essence of nature. The second step, Gottfried Wilhelm Leibniz's invention of the calculus, was preceded by equally profound philosophical reflection on the nature of thought and of reality. The same goes, though in a lesser degree and in a different direction, for Sir Isaac Newton, namely, restricting scientific research to the phenomenal world. Yet, for one who framed no hypotheses, Newton was remarkably metaphysical. Once these first steps were taken, the development of mathematics, both pure and applied, followed in the original direction. It is plausible that the present impasse of the natural sciences "at the threshold of metaphysics,"[33] to quote Otto Bruhlmann, points to the necessity of a new departure, a new delving of speculative thought into the metaphysical depths of symbolism—which may lead to new and entirely unexpected mathematical applications, as, for example, the application of number theory to the theory of material particles.

Granting the objection, there is one great difference between what, with Moore, we may call "ethics as a systematic science"[34] and the science of nature. In the science of nature it did not matter whether or not a frame of reference was arbitrarily selected or not, for experiment and observation checked the correctness of the theoretical results. There is no corresponding check in the science of ethics. This science has to arise by the strength of its own inner coherence. It has to carry its checks within itself. The situation is similar to that discussed by Kant for the science of metaphysics. As we have seen, the difference between the possibility of a science of nature and that of a science of metaphysics is, for Kant, that in the science of nature the understanding is constantly checked by sense intuition, whereas in the science of metaphysics reason must contain its own checks within itself. There is only one such check, based on the nature of thought itself, namely, contradiction. The task of Kant's transcendental dialectic was to show the checks within reason to consist in various kinds of contradiction. Our situation is similar, only turned in a positive rather than a negative direction. Mathematical natural science needs no

special internal convincingness since it has an external one, confirmation by experience and experiment. But the science of ethics needs special internal convincingness, and thus requires stricter rules than the science of nature. Any arbitrary selection of frames of reference, whether from logic or semiotic, epistemology or mathematics, or from whatever other source, is inadequate for it. For this reason all languages of ethics on the second leve! are inadequate, no matter how elaborately they are or could be developed. They would always be affected by the lack of necessity, which only the combination of systematic fundamentals with ethical fundamentals can guarantee. Thus, a system of value on the third level must be inter-axiomatic, by which I mean it must join ethical with non-ethical axioms.

Out of this demand arises an important consequence. It is often argued against the possibility of a system of ethics that no agreement could ever be reached about it. But once such a system has the inner convincingness just described, required as its presupposition, there will be no doubt in anyone's mind that this is the system looked for, or at least one which most closely resembles the ideal under the circumstances. Agreement about it would be a concomitant of the system. Such agreement could not be expected to appear at once; as with all advances, even in the field of science, the system would be slow of acceptance. But its truth—in every sense of the word—would guarantee its eventual success. In this respect it would not differ from a scientific system. The skepticism of those who doubt any agreement about ethical systems on principle is therefore unfounded. It is justified for first- and second-level analysis of value language, but not for third-level construction, which is as certain in its way as is mathematics in its way. Unless it is as certain, it is not third-level construction. In this respect, John Locke and his contemporaries were right when they compared ethical to mathematical demonstrability.

The career of Moore's theory of value is a verification of this argument. Moore's theory combines a fundamental of logic, the nature of definition and conceptual analysis, with the very fundamental of ethical language, the term "good." Only a minute adjustment in Moore's theory ought to be necessary for it to become a third- level language of value. To be sure, like in a sensitive organ, such an adjustment will make the difference between failure and success. An historical parallel is again afforded by Kant and his generalization of Hume's argument on causality through adjustment and elaboration of Locke's notion of analytic and synthetic judgment. Kant was very conscious of what he was doing and that his adaptation of Locke's notion made all the difference between obscurity and clarity. For, as he tells us in the *Prolegomena*, the clear can be found in the obscure only if a new thinker has first hit on the solution himself, "by his own reflection." Then he finds the new "general and yet definite principles elsewhere, where one could not possibly have found them at first" because the previous author "did not know that such ideals lay at the basis of (his) observations." But once the way is shown, even "men who never think independently have the acuteness to discover everything, after it has been once shown them, in what was said long ago, although no one has been able to see it there before."[35] Another historical parallel is that between Gottlob Frege and Bertrand

Russell, who found in Frege what no one, not even Frege himself, had seen there before. In the same way, it seems almost certain that in Moore's theory is hidden a key that will unlock the doors of a system of ethics. Such a system would be a logical theory of the third level. As it stands, Moore's theory is a logical analysis of empirical ethics on the second level. How it could be transformed to one of the third level will be seen in the next chapter.

Another philosophy, existentialism, which for many will not seem to belong here at all, appears to be as close to the solution of a systematic ethics as Moore's. It has made an even deeper, or at least a wider, impression. While the logical notion on which Moore bases his value theory is that of conceptual analysis, that on which the existentialists base theirs is the relation of class membership—which they deny. The logical tenet of the existentialist is expressed in Jean-Paul Sartre's motto "existence precedes essence," which can also be formulated as "the singular precedes the universal"—human individuals in the fullness of life itself, of their unique personal existence, are beyond any conceptualization—*except their own.* Thus a new logical relation of single-class membership is established, as strikingly developed in Kierkegaard's *Either/Or* and Sartre's *L'Etre et le Neant*. A formal axiology could be developed by working down, so to speak, from existentialist dialectic to the axiological relationship holding between a thing and its concept, or up from the second to the first.[36]

D. Epistemological Analysis

By epistemological analysis of value language I mean analysis in terms of the theory of knowledge. Such analysis would, like the logical and, in a different sense the semiotical, have its ground and justification in the nature of thought itself. It would be on the third level if it normatively applies to empirical language in its own systematic terms, that is, if it constitutes a complete, coherent, and consistent system in itself, and if certain axioms of this system are defined as those of ethics. Otherwise, if selected epistemological insights are used to interpret value phenomena and their linguistic analyses, it would be on the second level. An attempt at such a second-level analysis is C. I. Lewis's *An Analysis of Knowledge and Valuation.* This attempt cannot be said to have succeeded, not even in terms of the second level, for the selected epistemological categories developed in the earlier parts of the work are not applied consistently to the valuational categories in the last part. Rather, the last part is largely a first-level analysis of moral phenomena in terms of empirical concepts, that are only loosely connected, if at all, with the epistemological categories developed in the earlier parts. Lewis's work, similar to Stevenson's, stands halfway between first- and second-level analysis, but for different reasons. It is not third-level analysis, for it neither presents a system of epistemology nor analyzes value language and its phenomena in its own terms. It is, in the field of epistemology, as selective as are A. P. Brogan and R. M. Hare in the field of logic; and in its analysis of value language, it is less consistent than either.

Kant's is a third-level analysis of this kind. It is so subjectively, in the mind of Kant, as well as objectively, once we understand Kant. For Kant, the system of value is integrated with the system of science, based on the *a priori* of the unity of apperception. In the systems of science and of morality, a hierarchy is established. Descriptions of scientific and moral phenomena on the first level are given in Kant's Pre-Critical writings like his *Anthropology*, which "observes the actual behavior of human beings."[37] The principles of these descriptions on the second level are developed in the *Metaphysics of the Natural Sciences* and the *Metaphysics of Morals*; and the principles of such metaphysics on the third level are given in the *Critique of Pure Reason*, the *Critique of Practical Reason*, and their satellites, the *Prolegomena* and *Groundwork*, respectively. For Kant the *Metaphysics of Morals* was to be to applied ethics what pure mathematics is to applied mathematics,[38] so that applied ethics would be in the field of moral philosophy what applied mathematics, or natural science,[39] is in the field of natural philosophy.[40] Whether this Kantian scheme was successful is not the question here. Kant worked on it to the end of his life, and it is the only such science that exists in moral philosophy. Objectively, this system contains possibilities for the third-level epistemological construction of ethical systems; they are by no means exploited, but if they were, they would lead, precisely, to the logical dialectic of existentialism. In its transcendental employment, the unity of apperception not only creates the world of objects, it also creates its own transcendental self, a process Kant only hints at in the *Critique*. To this process of transcendental self-creation, the whole apparatus of the *Critique* could be applied, and the result would be a new and third-level ethics. The system of the schematized categories is a construction in the sense of this level. (Three of my graduate students at Yale University made valuable contributions to this subject—David C. Hay, Peter E. Pezzolo, and Brenda Jubin).

E. Mathematical Analysis

By mathematical analysis of value language we can understand two different things, either second-level analysis or third-level construction. There is no reason why the fundamental notions of mathematics should not be applicable to those of ethics as long as the metaphysical fallacy is avoided, that is, if mathematics is used in its qualitative rather than quantitative aspect. Alfred North Whitehead made a telling case for just this possibility in his essay, "Mathematics and the Good,"[41] and G. E. Moore himself placed "good" alongside number. Whitehead shows the connection between patterns of organization and the nature of good, both based on the human faculty of conceptualization. This, to be sure, seems to be an application to value of logic, rather than of mathematics. Whitehead's long-range program for symbolic logic is precisely the system of value.

> When in the distant future the subject has expanded, so as to examine patterns depending on connections other than those of space, number, and quantity

—when this expansion has occurred, I suggest that Symbolic Logic, that is to say, the symbolic examination of patterns with the use of real variables, will become the foundation of aesthetics. From that stage it will proceed to conquer ethics and theology.[42]

But this study of patterns can also be called mathematics. "Mathematics is now being transformed into the intellectual analysis of types of patterns....Mathematics is the most powerful technique for the analysis of the relations of patterns."[43] But there are more strictly mathematical possibilities of ethical systems. One could envisage, for example, an application of the calculus to the process of growth as described by John Dewey and Sartre or an application of combinatorial analysis to the methods of agreement and disagreement,[44] or, especially (and here a most significant attempt has been made) the application of "the logic of relativity" to ethics.[45] Ethics, if it is to be a system, is a "space" in the modern sense of the word, and this, certainly is a fundamental aspect of it as a science.[46]

The geometry of non-Euclidean spaces is definitely a fundamental aspect of mathematics. If Henry Lanz had combined ethics and mathematics, his book, *In Quest of Morals*, would be a solution of the problem of value language. But he failed, from my point of view, in two respects. First, he does not define the ethical realm in terms of the system of coordinates that he designs. Rather, he takes ethics in its traditional form and merely interprets its arbitrary empirical concepts and situations in terms of his system. He does not use his system, as well he could have, to define the realm of ethics; he does not use it on the third, but merely on the second level of value analysis. Secondly, his system is not really a mathematical system; it is only an interpretation of logic through the techniques of tensor analysis. This interpretation of logic is highly suggestive and may well constitute a significant contribution to the adjustment necessary to make logic applicable to ethics. His work is incoherent in a way similar to C. I. Lewis's. Lewis's epistemological categories are not as strictly systematic as Lanz's logical categories, and Lewis's application of his categories to moral language is not as strict as Lanz's application of his categories to that language. While Lewis's value analysis is largely on the first level, Lanz's is consistently on the second level. Although he does analyze first-level ethical language and moral situations in his own terms, Lanz fails to integrate his new view into a new Ethics.

Although Lanz's is the most ambitious undertaking so far in this field, he is by no means alone or divorced from ethical tradition. We can trace the geometrical analysis of value language back to Pythagoras, to Plato's divided line (not to mention the inscription over the Academy and his last, and lost, *Lecture On The Good*), to Aristotle's calculus of distributive and rectificatory justice, to Baruch Spinoza's *Ethica More Geometrico Demonstrata*, to John Locke's conviction of the equal demonstrability of mathematics and ethics, to Jeremy Bentham's calculus, to Francis Hutcheson's "Universal Canon to Compute the Morality of any Actions,"[47] and to Jacques Rueff,[48] Henry Margenau,[49] F. S. C. Northrop,[50] Bertha B. Friedmann,[51] and

Hermann Friedmann,[52] to mention just a few in our own time. All these are only selective attempts and do not represent the best possible theory of mathematical ethics.

3. Third Level: Systematic Value Language

By systematic value language I mean a formal system of axiology that does not *analyze* value language but *constructs* it—by autonomously defining it in its own terms. It is a system that defines certain of its own axioms as those of ethics and thus creatively defines the realm of ethics. This third-level language is independent of empirical language and its uses.[53] It applies its own terminology to this language, which serves as its raw material—just as descriptions of natural processes and their analyses serve as raw material for mathematical interpretation, even though mathematics itself is independent of the empirical material.

Enough was said in the preceding sections about the possible nature of such a language to understand that at least four such systems are possible on this level: the semiotic, the logical, the epistemological, and the mathematical. It may well be that one of these will ultimately turn out to be supreme and would thus constitute a fourth level of value analysis. For the time being, logical analysis seems to have the greatest chance of becoming a third-level system. This would mean that the terms, propositions, and relations of value language would find their systematic position through reference to the system of logic, and that ethics and logic would merge in a similar way as physics and geometry have merged in natural science. Such a development may have to await an expansion of logic, just as the corresponding development in physics presupposed the expansion in geometry from Euclidean to non-Euclidean spaces. Possibly the Nikolai Lobachevskys and Jánus Bolyais of logic have already done their work in the persons of Immanuel Kant, G. W. F. Hegel, Edmund Husserl, John Dewey, and Ernst Manheim,[54] as well as George Boole, Bertrand Russell, and Ludwig Wittgenstein. Logic covers the total realm of thought, and any one direction—even the mathematical—is an arbitrary selection from the whole field of possible logics.[55] One or some of these logics might, after what has been said, be used to elaborate the logical elements in ethical theories, particularly G. E. Moore's theory. Thus either, as Susanne Langer said, "ethically interested logicians will probably be the founders of scientific ethics,"[56] or, more likely, logically interested ethicists. (Note that physicists created physics, not mathematicians.) Once their work is done, the division between ethics and logic will not exist any more in the old sense, since no axiology will be possible without logic—just as today no physics is possible without mathematics. At that time, traditional ethics—first- level empiricism and second-level conceptual analysis—will be of only historical interest.

No matter what final form the system of axiology takes, it will be fundamentally different from the lower levels of value analysis. First of all, it will not exhibit any more the features of arbitrariness that we found on the lower levels. If several such systems should appear on the third level, each would have to exhibit necessity

in its own terms; otherwise, it would not be a third-level system. Conceivably, such different systems would deal with different but equally fundamental aspects of the moral and ethical realm, just as different kinds of analysis today account for different natural phenomena in relativity and quantum theory, but with the same necessity and the same fundamental significance for physics. Many such systems of axiology cannot be, for the requirements that such systems have to fulfill are extremely severe. Not only will each system have to be consistent in itself, it will also have to accord with the fundamental propositions of ethics. It will have to account for any ethical theory on any level of analysis whatsoever—Plato's and Nietzsche's, James's and Stevenson's, Hare's and Hilliard's, Bentham's and Moore's, Kant's, Wilbur M. Urban's, and Kierkegaard's. It will have to do so not only in a general but also in a specific way. It will in the same precise manner have to account for the moral phenomena themselves, including those mentioned at the beginning of this chapter.

This is not all. The formality and universality of the theory means that more will be contained in it than applicability merely to the moral realm and its languages. It will have to be a general theory of value, applicable to and normative for not only ethics, but all fields of value. For, as Susanne Langer indicates,

> if there is to be a science of value, someone must formulate the basic conceptions which shall give rise to ethics, aesthetics, and possibly economics, all at one stroke. If 'value' really constitutes a definable field, then all these sciences are related....Probably the whole system, once it is discovered, will look no more like present-day theory of value than astronomy looks like its precursor, astrology.[57]

Thus, not only will the new system have to account for and interrelate all the phenomena and propositions of ethics, but also those of all the other disciplines that have to do with value, which seems to be the whole realm previously called Moral Philosophy and today called Social Science and the Humanities. And it will have to do so in the same precise manner that physics interrelates "mechanics and physico-chemistry and electrodynamics...by one elaborate system."[58] The question, then, of what a stop sign has to do with the sign "Lidice," and the love of God with the love of buttons or the price of a cow, will be answered, for definite correlations will exist between the realms of ethics, metaphysics, economics, and semiotics; and all these realms will be precisely defined.

If this is so, and if the new system will by its very nature include the norms not only for ethics but all the other value sciences, then its inherent logic, its systematic import, ought to lead to ever new empirical discoveries—its empirical import, in the fields of value reality, as ever new applications of the system to reality will be found. The system itself will develop more and more and eventually divide into pure and applied axiology. Pure axiologists, as today pure mathematicians and mathematical logicians, would concentrate on the development of the system as such, whereas applied axiologists would be the future social scientists—psychologists, sociologists,

economists, political scientists, as well as the future ethicists, aestheticians, and metaphysicians, whose sciences will be, precisely, the application of the new system to their respective fields.[59] Then, in the social sciences and the humanities, the same hierarchy of language levels will exist as does exists today in the natural sciences. On zero level will be the various social and moral situations, on the first-level will be empirical descriptions of value situations, on the second-level conceptual analysis of these descriptions, and on the third-level the autonomous system that defines the various realms of value in its own terms and functions for them as superstructure, in the same way that mathematics functions as superstructure for physics and other natural sciences. *Just as today mathematics is the language of natural science, axiology will then be the language of value science.*

This language will not spring forth ready-made from the head of a philosopher or scientist. Rather, for a long time to come, value languages will persist on all levels, in trial and error, and value theory will be in the same condition in which we find sciences such as biology today, existing on all levels of analysis, from first-level empirical description to third-level systematization, but without any (or with only loose) correlation of the various levels. Third-level analysis in biology is more advanced than it is in the social sciences, but it is by no means yet a completed and accepted system. Mathematically, it ranges all the way from primitive diagrammatic and geometric design to complex mathematical formulation and symbolic logic.[60] Today's value theories do not have any systematically significant material interrelations, but they do have the formal interrelations traced and formulated in the five propositions previously delineated. Understanding the hierarchy of value languages, therefore, makes it possible to classify and analyze value theories and to assign to them a systematic position in the still unsystematic enterprise of valuation. This same hierarchy, through the axiological fallacies, also makes possible a critique of these theories.

Three

VALUE SCIENCE AND NATURAL SCIENCE

The rapid progress true science now makes, occasions my regretting sometimes that I was born so soon. It is impossible to imagine the height to which may be carried, in a thousand years, the power of man over matter.... Oh that moral science were in as fair a way of improvement, that men would cease to be wolves to one another, and that human beings would at length learn what they now improperly call humanity.[1] Benjamin Franklin

1. The Present State of Ethical Theory

Let us now return from the ideal hierarchy of value languages to their manifestation in the reality of present-day value theories. Since there is no third-level value language, ethics is indeed in an impasse. The profound and relevant irrationality of the non-naturalists contrasts with the shallow and irrelevant rationality of the naturalists—with the pseudo-rationality (or irrationality) of the positivists in the middle. Non-naturalist moral thought culminates in the admitted and recognized impasse of G. E. Moore, and positivistic and naturalistic philosophy culminate in the unconcern of certain philosophers who believe there is no value problem to solve, or the content of others who believe they have solved a problem that actually they have not discerned. While Moore plumbed the depths of ethical reality without ever bringing anything to the surface, naturalists and positivists glide over the frozen surface with all the nonchalance of skaters blissfully ignorant of the depths beneath them. The naturalists are not really interested in their sport but look to yonder woods where they hope to sample roots and herbs. The positivists are of three kinds: some are going so fast that they do not even realize they are skating but think they are flying and that there is no water at all; the second show some interest in what they are supposed to be doing and feel that there may be a connection between their merry mood and the depths below, perhaps because these depths influence the temperature and thus arouse certain emotions in them (hence they keep checking thermometers); the third are even more inquisitive—they pick up, from time to time, some pieces of ice, look at them from all sides, and amuse themselves by arranging them in mosaic patterns, between which they skate in artful circles, disregarding the whole vast expanse and, with the high-flying skaters, deny either that it exists or that it matters: all that matters are the little figures they draw. The first are the radical positivists, the second the emotivists, the third certain writers of the so-called Oxford School. All four schools—naturalist, radical positivist, emotivist, and Oxford contextualist—conspire with the Moorean school in bringing about the downfall of rational moral philosophy. The assault against the admittedly inadequate moral philosophy of the past led both from the side of profound ethical thinking, in G. E. Moore and concerned positivistic thinking, in the emotivists and certain contextualists, to a situation

where nothing was more remote from the minds of moral philosophers than the vision of a moral science patterned in the image of natural science: as exact and comprehensive, as precisely structured and simple in its foundations, and as powerful in its application.

The naturalists, supposedly, do want to bring about a "scientific" ethics. But the "science" they speak of is very different from the "science" meant by Moore or by mathematico-empirical natural scientists. The naturalistic philosophers who recognize, and want to overcome, the intuitivist-positivistic sterility of moral thought are themselves hampered by their merely empirical view of "science," by their failure to see the structure as against the content of science—the confusion I call "the fallacy of method." This fallacy appears in the naive belief that the models of moral science ought to be the social and humanistic disciplines—sociology, psychology, anthropology, history, and perhaps biology—because, supposedly, these sciences deal with the same subject matter as ethics. This assumption begs the question of moral philosophy and is based on the superficial understanding of concepts such as "man" and "conduct" that appear in all these sciences as well as in ethics. These are precisely the disciplines that share with ethics a lack of development.

The heart of ethical reality can only be reached by the formal analogy between moral and natural science, that is, the synthetic procedure of any science. The social sciences have remained undeveloped for the very same reason that ethics has, namely, their neglect of this procedure, their emphasis on content to the exclusion of form—the same fallacy that was committed by Aristotle and corrected by Galileo. We must first think about and construct a framework for moral reality, as Galileo did for motion, if we want to find the verification of our thought, for empirical verification presupposes a thought structure to be verified. This the ethical naturalists fail to observe. Although they do profess a "scientific" ideal for ethics, they do so in the superficial way of pre-scientific natural philosophy. They use analytic rather than synthetic concepts, disregarding the structure of true scientific knowledge, which is both empirical and theoretical—theoretical, that is, in the strict sense of being a formal system.

The same is true—something which is not obvious at first glance—of those naturalists who do take the mathematico-empirical structure of science as their model for ethics. Instead of applying this structure to good itself, they first identify good with some other thing like choice, decision, or preference and then apply mathematics to this other thing. Thus, they too beg the question of ethics and, in addition, close ethical inquiry against any further development even more firmly than those who only apply analytical and hence less definite concepts. Their procedure then is not a legitimate one for ethics, which would involve organically connecting goodness with a formal pattern, say mathematics, as envisaged by Whitehead and Plato: a formal structurization of goodness itself. Rather, it is an Aristotelian procedure, comparable to Aristotelian number fantasies about motion. Only Galileo Galilei structured motion itself in a formal pattern, a "miniature geometry," as Everett W. Hall felicitously put it.[2] The result is, in both kinds of ethical naturalism, the naive

procedure that adds to the involuntary obscurantism of Moore and his school, and the voluntary obscurantism of the various schools of positivism, the involuntary-voluntary obscurantism that dissolves ethics into naturalistic pseudo-science. Thus, naturalism in all its forms completes the confusion of moral philosophy that intuitionism and positivism compound.

No wonder, then, that at present no science of ethics with both systematic and empirical import exists. Ethics today is largely irrelevant to moral reality. Since it is also irrelevant to factual reality, ethics today is simply irrelevant. An English writer, J. V. Langmead Casserley, says:

> Modern ethics...lacks breadth and comprehensiveness. Worse than that, it is, upon the whole, extremely dull. Ethics, after all, professes to be a study of the experiences which are among the most dramatic and crucial in the whole drama of human life, moments of responsible decision and fateful choice, of creative anxiety and destructive temptation, crises of sin and salvation. If ethics is not concerned with such peak moments of existence as these it is indeed a veritable "much ado about nothing." The tense, passionately rational, world-shaking drama of ethical experience does not ruffle or excite the pages of the modern moralist. Young students of ethics often complain of a feeling of disappointment when they get down to the grind and detail of a course on ethics as it is designed and imparted in a contemporary university. Poor things, they had hoped that it might disclose to them the meaning of life! (After twenty years I can still remember my own shocked and bitter disappointment.) But there is nothing of all this—not even the aspiration—to be found in the cynical naturalism of a Machiavelli or a Hobbes, the complacent optimism of a Shaftesbury or a Hume, the insipid banality of a Bentham, the honest puzzled bewilderment of a good man perched precariously on the verge of deeper things, like John Stuart Mill, the heavy prosings of a Sidgwick, or the unprofitable verbal pedantry of a G. E. Moore. Of the conventionally studied modern moralists only Kant seems vividly aware of the drama and excitement of profound ethical experience.[3]

How, indeed, would a utilitarian be able to account relevantly for the moral significance of Hitler's gas chambers and their card-indexed horror? Would he call them unuseful or unpleasant? This type of theory, writes Casserley, "will repeatedly attract intelligent and good-natured men who lack acute ethical perception and profound moral experience."[4] Or to speak with G. E. Moore—whose profound contribution to ethics Casserley misunderstands for the same reason as so many other writers, namely, for considering the material rather than the formal significance of his work —pleasure is for the beginners in ethics. Moore states:

> Hedonism is, for a sufficiently obvious reason, the first conclusion at which any one who begins to reflect upon Ethics naturally arrives. It is very easy to

> notice the fact that we are pleased with things. But it is comparatively difficult to distinguish the fact that we approve a thing from the fact that we are pleased with it....It is very difficult to see that by 'approving' of a thing we mean feeling that it has a certain predicate—the predicate, namely, which defines the peculiar sphere of Ethics.[5]

When we see how this "vulgar mistake"[6] appears in the hands of some positivists, we encounter a phenomenon probably unique in the history of human thought: lack of sensitivity in a field is set up as the criterion for expertness in the field, with the result that the field itself all but disappears. "The true measure of the failure of modern ethical theory is to be found in its inability to convince the most characteristic forms of contemporary thought that there is any genuine ethical experience to be theoretical about."[7] Moral values are so inarticulate that a very special sensitivity is needed—corresponding perhaps to the musical sensitivity of a Jascha Heifetz—to insist on their intellectually significant presence. A layman's moral sensitivity—corresponding perhaps to the musical sensitivity of the average radio listener—coupled with a high logical intellectuality, can easily lead to the conviction that there are no values and that what goes under this name are unintelligible emotions.

The reason for the inarticulateness of value is, precisely, the lack of a third-level value language. This lack impedes both intelligent critique of value theories and distinct perception of their subject matter. As the third-level language of fact had to be created out of natural philosophy, so the third-level language of value has to be created out of moral philosophy. As the result in the first case was natural science so, in the second case it is moral science.

2. The Formal Analogy Between Natural Science and Moral Science

The analogy between natural science and moral science must not—and cannot—be made materially but only formally. Only the structures, not the contents, of both sciences can be compared. Any other comparison is both fruitless and senseless and, more importantly, leads to fallacies (either to the metaphysical or naturalistic fallacies), if natural science is supposed to be applicable to valuation, or to the cluster of fallacies (especially that of method) committed by the positivists, when they hold that the scientific method is not applicable to value because value is not fact and the scientific method is that of fact but not of value.

At bottom, the positivistic confusion is that between the Kantian analytic and the synthetic *a priori* judgment; the first is based, in Kant, on analytic concepts, the second on synthetic concepts. The positivists call formal concepts "analytic" and material concepts "synthetic" and thus miss—and confuse—the logical and epistemological, as well as the historical, significance of the distinction. The confusion derives from that between analytic and synthetic *concepts*, as opposed to analytic and synthetic *judgments*. Judgments with both kinds of concepts are called both analytic and synthetic.[8] Therefore, these judgments cannot serve as basis for the analyticity

or syntheticity of the concepts. Yet, the positivistic distinction of the concepts is based on that of the judgments.

In my sense, based on the Kantian logic of concepts rather than an epistemology of judgments, analytic concepts are material and methodologically empty, while synthetic concepts are formal and methodologically relevant. The positivistic use of the terms confuses analytic emptiness and synthetic formality, as well as analytic materiality and synthetic relevance, assigning formality to the analytic and materiality to the synthetic. It thus misses the materiality and emptiness of the analytic (its abstractive nature), and the formality and significance of the synthetic (its constructive nature). It misses the logical and epistemological significance of the distinction between categorical analysis and axiomatic synthesis, between abstraction and construction, respectively.

The scientific method, precisely because it is a method and has nothing to do with content, is applicable to anything—fact, value, and what not. The historical fact that science has been applied to fact and not to value does not mean logically that such application is impossible. Rather, such a conclusion can arise only if the *content* of natural science is confused with its *form*. Such confusion, naturally enough, brings with it the confusion of moral science with its content; and this confusion makes all possibility of a moral science disappear.

We will now examine the formal analogy between natural and moral science in the writings of a scientist and a philosopher—and find, instructively enough, that fallacies are more abundant in the writing of the philosopher than of the scientist.

A. Third-Level Construction in Science and in Ethics

The relevant scientist is none other than Albert Einstein. Einstein gives a clear view of third-level construction in natural science and applies his insight to ethics.[9] Science, for Einstein, is not merely an empirical matter but, on the contrary, an autonomous creation that does not derive from empirical abstraction but leaps from the results of such abstraction—analytic concepts with some empirical but no systematic import—to a new dimension of synthetic concepts with systematic import. Even purely empirical science, such as that of Thomas A. Edison or Charles F. Kettering, is not so much a matter of "observation" as of thinking. "A problem," says Kettering, "is not solved in the laboratory but in a fellow's head. He only needs the laboratory apparatus to get his head turned around so he can see the thing right."[10]

Einstein distinguishes the same three levels of science discussed above.[11] He speaks of the "stratification" (*schichtenstruktur*) of the scientific system. The first level is that of purely empirical perception of the world and the first concept formation. It is what Kant calls description, what Carl Hempel calls the first steps of empirical analysis, and what Whitehead calls the first thought-object of perception. The second level is that of meanings abstracted from the sensible world. This is the level of the Kantian exposition, Hempel's analytic definition, Whitehead's second thought-object of perception—the level of analytic concepts, of common sense and

philosophy, both natural and moral. This level consists of abstractions from the first level. On the first level are the "primary concepts," that is to say, "concepts directly and intuitively connected with typical complexes of sense experiences."[12] The second level adds "theorems connecting them," (analytic concepts); "in its first stage of development, science does not contain anything else"[13] and is identical with everyday thinking. "Our everyday thinking is satisfied on the whole with this level."[14] Of not-so-scientific thinking, Einstein says:

> Such a state of affairs, cannot, however, satisfy a spirit which is really scientifically minded; because, the totality of concepts and relations obtained in this manner is utterly lacking in logical unity. In order to overcome this deficiency, *one invents a system* poorer in concepts and relations, a system retaining the primary concepts and relations of the 'first layer' as *logically derived concepts and relations*. This new "secondary system" pays for its higher logical unity by having, as its own elementary concepts (concepts of the second layer), only those which are *no longer directly connected* with complexes of sense experience.[15]

This third level is theoretical science as an autonomous creation of the mind. "One invents a system," and in this system the original concepts and relations appear as *logical deductions*. There is, then, a leap between level two and three, between the primary "system" and the secondary system. The primary "system" is one of abstraction, the secondary system one of construction. The primary "system" is analytic, the secondary system synthetic. Between the two is a leap in method: the first is inductive, the last is deductive. Einstein makes crystal-clear that *science is not a hierarchy of abstractions*:

> An adherent to the theory of abstraction or induction might call our layers 'degrees of abstraction;' but, I do not consider it justifiable to veil the *logical independence* of the concept (of the third level) from the sense experiences. The relation is not analogous to that of soup to beef but rather of wardrobe number to overcoat.[16]

The origin of the concepts of the third level, then, is not simply abstraction but a special intuition capable of penetrating to the very core of the phenomena and there encounter the logical essence. It is *axiomatic identification*—recognition of the isomorphism between the logical structure of the phenomenon and logical structure itself: overcoat and wardrobe number.

> We are dealing with *freely formed concepts* which, with a certainty sufficient for practical use, are intuitively connected with complexes of sense experiences in such manner that, in any given case of experience, there is no uncertainty as to the applicability or non-applicability of the statement. The essential

> thing is the aim to represent the multitude of concepts and theorems, close to experience, *as theorems, logically deduced and belonging to a basis, as narrow as possible, of fundamental relations which themselves can be chosen freely (axioms)*.[17]

Axioms, the fundamental concepts of the third level, are free constructions of the human mind. They are Kant's synthetic and Hempel's nominal definitions, the ideal limits of Whiteheadian conceptual enclosure sets,[18] and give rise to Whitehead's "thought-objects of science." They are what makes the formal *empirically relevant* and hence axiomatic, "worthy of being thought." Their formality combined with their relevance gives rise to the Whiteheadian "paradox...now firmly established, that the most abstract thought controls the most concrete reality."[19]

The third level, then, is an independent system that consists in logical relations based on axioms selected to be as simple as possible. The liberty of selecting these axioms is not purely arbitrary. Einstein, whose words, "Subtle is the Lord God, but He is not Malicious" are chiseled (in German) over one of the fireplaces at Princeton University, insisted that the selection of axioms

> is of a special kind; it is not in any way similar to the liberty of a writer of fiction. Rather, it is similar to that of a man engaged in solving a well designed word puzzle. He may, it is true, propose any word as the solution; but, there is only *one* word which really solves the puzzle in all its forms.[20]

This word, precisely, is the axiom; it is what the totality of analytic concepts-within-concepts of abstraction approaches: the infinitely distant point toward which the nest of Chinese boxes infinitely diminishes. Since this approximation is infinite it can have no end; its limital point can be reached only by a leap.

We may compare this leap to one from denumerable to non-denumerable infinity in the theory of transfinite numbers. By continuing Einstein's simile of the puzzle, we can give the whole process certain numerical values. A puzzle is a continuum; that is to say, the problem of the thinker is solved as soon as she or he sees the subject as a total Gestalt. The oft repeated expression of creative thinkers that "everything is falling into place," and that they see their work "as a whole." Examples are the ecstatic letters in this respect of Johannes Kepler, Wolfgang Amadeus Mozart, and Sigmund Freud, to mention only three. Helen Evangeline Rees gives a detailed analysis in *A Psychology of Artistic Creation*.[21] The power of the continuum is that of non-denumerable infinity, the transfinite number $\aleph_1$. The axiom, which is the "key word" of the puzzle, is a part of the continuum and has, as such, the power of the continuum itself. By contrast, the discursive concatenation of analytic concepts—the potential infinity of all common sense and philosophical thought, seen in its totality—has the power of discrete objects, the denumerable infinity $\aleph_0$.[22] The leap from the analytic definition—which contains the totality of the analytic thought in question—to the axiom, is then a leap from $\aleph_0$ to $\aleph_1$. Since we have the equation

$2^{\aleph_0} = \aleph_1$, and "$2^{\aleph_0}$" represents the totality of all possible analytic thought configurations, this means that the leap can be made only after all empirical and abstract possibilities have been exhausted. This jibes with the psychology of the creative process; the stage of "preparation," of steeping oneself in the problem, must precede the stage of synthetic concept formation.[23] It also jibes with our application of Whitehead's analysis—the totality of denumerable infinities $\aleph_0$ approaches the ideal limit $\aleph_1$. This limit may be an infinitely small entity, yet it is part of the continuum, and thus infinitely large. The leap from $\aleph_0$ to $\aleph_1$ in formal axiology is that from extrinsic to intrinsic value.[24] Thus, third level construction is intrinsic valuation.[25]

The inductive method is only a small part of science and not the whole of it as the logical positivists believe. This is made very clear by Hempel,[26] and Einstein is emphatic on this point:

> There is no inductive method which would lead to the fundamental concepts of physics. Failure to understand this fact constituted the basic philosophical error of so many investigators of the nineteenth-century. It was probably the reason why the molecular theory and Maxwell's theory were able to establish themselves only at a relatively late date. Logical thinking is necessarily deductive; it is based upon hypothetical concepts and axioms.[27]

This, then, is the method of natural science; its power resides in its formal structure. Through its mere formulation the theory of relativity

> reduces the whole mechanics of gravitation to the solution of a single system of covariant partial differential equations. The theory avoids all internal discrepancies which we have charged against the basis of classical mechanics. It is sufficient—as far as we know—for the representation of the observed facts of celestial mechanics.[28]

A synthetic system does not arise entirely out of the blue, Einstein insists; it is not "fiction"[29] but relevant to sense reality. It is the result of a continuous application of human thought, part of a process of evolution, and in constant evolution itself. The natural phenomena are never fully covered by any system; every synthetic system contains analytic lacunae that only a further development of the system, indeed, a new system, can erase. For example, in quantum theory, analytic descriptions interpret Erwin Schröedinger's equation for calculating wavefunctions as "matter waves," "duality," "complementarity," and the like, as against the synthetic (statistical) interpretation of Niels Bohr.[30] The "secondary system" is therefore only provisional; it gives rise to tertiary, quaternary, and even higher systems, all of greater formal power and material applicability, all of increasing intension and extension. Thus, Kepler and Galileo led to Sir Isaac Newton, Newton to Einstein, and Einstein will lead to further systems of more comprehensive and profound understanding of physical reality.

This connection between sense reality and science distinguishes the theoretical structure of a science from hallucination and philosophy. As Einstein remarked,

> Science is the production of some sort of order among sense impressions, this order being produced by the creation of general concepts, relations between these concepts, and by relations between the concepts and sense experience. The totality of these connections—none of which is expressible in notional terms—is the only thing which differentiates the great building which is science from a logical but empty scheme of concepts. By means of these connections, the purely notional theorems of science become statements about complexes of sense experience.[31]

The applied or practical part of science, then, is impossible without the theoretical part, the empirical import impossible without the theoretical import. The so-called practical part of a science—and this is what some empiricists either forget or regard as so obvious as to be negligible—is embedded in a matrix of measurements, of mathematical relations, that *result from creative effort*, such as Galileo's and Lavoisier's in natural philosophy. Through this effort the first large sections of analytic philosophy become synthetic science, but large sub-sections within it remain philosophy; they remain analytic, even though now embedded in a system of measurements. Successive scientific efforts must be made to erase these analytic gaps in the system. They are characterized by the creation of systems of greater and greater systematic and empirical import. Compared to the new system, parts of the old system were analytic and were converted by the new system into synthetic elements. These were the parts that "did not fit," as we say, into the old system, such as inertia in Galileo's system, or the rotation of Mercury's orbit and the famous Scholia in Newton's system. Parts of Galileo's system were analytic in comparison to Newton's, and parts of Newton's system were analytic in comparison to Einstein's and Pierre Simon Laplace's.

The difference is great between the *relative* analyticity or syntheticity of the successive systems, the *absolute* analyticity of a philosophy such as Aristotle's, and the *absolute* syntheticity of an original scientific system such as Galileo's. Both Newton and Einstein, and all the physicists of the future, operated and will continue to operate within the system opened up by Galileo. His was the fundamental transition, the absolute leap from the analytic to the synthetic, from philosophy to science. He had to invent invention itself, so to speak, to construct construction, to synthesize the synthetic. His was absolute syntheticity. He opened the road for all who want to think scientifically about nature. We have to accomplish this same fundamental transformation in moral philosophy.

Our task then is halfway between Galileo's radical departure and the refinements and extensions of his system by subsequent natural scientists. We have to make the transition from philosophy to science; and we have to invent invention in

the moral field and design a completely new system of measurements. We have the example of Galileo to guide us. All we have to do is to be as dissatisfied with Aristotle's *Ethics* as Galileo was with his *Physics*. Thus, we are more fortunate than Galileo in that all we have to do is to follow in his footsteps. Yet, perhaps Galileo was more fortunate than we are, for his senses could show him the truth, while our senses cannot show us values. But this advantage is largely illusory, for Galileo also first had to invent the use of the senses, and much that he showed his contemporaries was regarded by them as hallucinations. He had to trust his inner eye before he could use the physical eye as verification. Our guide, Galileo's system and its development, is a surer guide for our inner eye than was the physical eye for Galileo.

The third scientific level is of two kinds, depending on whether the second level is philosophy or empirical science. In the first case, it is a revolution, a radical new departure, the opening up of a new world; in the second case it is the amplification and continued formalization of, and within, a synthetic system that contains analytic lacunae. But even this secondary formalization is a new and autonomous creation of a system and can carry with it a revolution, if not in the image, but in the reality of the world—as was the consequence of Einstein's own theory. Compare Leibniz's hierarchy of what we today would call basic research, practical research, and applied science. The highest art is basic to theoretical research—constructing synthetic systems. A "lesser art" is practical research—"carrying out analysis to achieve everything through one's own work." The least art is applied science, which "uses syntheses already set up by others and theorems already discovered."[32]

For Einstein these further developments of systems are tertiary and higher systems, "still poorer in concepts and relations" than the secondary systems, and designed

> for the deduction of the concepts and relations of the secondary (and so indirectly of the primary) layer. Thus the story goes on until we have arrived at a system of the greatest conceivable unity, and of the greatest poverty of concepts of the logical foundation, which are still compatible with sense observation. We do not know whether or not this ambition will ever result in a definite system. If one is asked for his opinion he is inclined to answer no. While wrestling with the problems, however, one will never give up the hope that this greatest of all aims can really be attained to a very high degree.[33]

In order to approach this goal,

> we must make up our mind to accept the fact that the logical basis departs more and more from the facts of experience, and that the path of our thought from the fundamental basis to these resulting theorems, which correlate with sense experiences, becomes continually harder and longer.[34]

This means that the language of science becomes more and more technical and distant from ordinary language, and hence the art of application of the system more and more difficult. Application may be called a fourth level, or a fourth dimension of science, that of coordination between the theoretical system and the material observation. There are, then, for Einstein four levels of science: (1) primary observation and description, (2) the secondary system (partly analytic partly synthetic), (3) the tertitary and succeeding (synthetic) systems, and (4) the application of the third to primary observation. This corresponds to the three levels of science discussed earlier, to which also the dimension of application must be added. Although Einstein believes that application is not subject to "notional terms," Hempel and others have given very acute "notional" analyses of the application of systems.

The supreme task of the physicist, Einstein concludes, "is to arrive at those universal elementary laws from which the cosmos can be built up by pure deduction. There is no logical path to these laws, only intuition, resting on sympathetic understanding of experience."[35] Einstein regards this intuition that leads to the axioms of a system as the mystery of scientific creation. "One may say 'the eternal mystery of the world is its comprehensibility.' It is one of the great realizations of Immanuel Kant that the setting up of a real external world would be senseless without this comprehensibility."[36]

Einstein gives a psychological explanation of this intuition in his contribution to Jacques Hadamard's *The Psychology of Invention in the Mathematical Field*, where he speaks of the "combinatory play" that is "the essential feature in productive thought—before there is any connection with logical construction in words or other kinds of signs which can be communicated to others."[37] The logical aspects of this process are discussed in the "Introduction" to Immanuel Kant's *Logic*, Edmund Husserl's *Ideas*, and John Dewey's *Logic*. In thinking about this "mystery" Einstein frequently turns metaphysical. The connection between the world of things and the logical system is for him, as for Ernst Cassirer (but not for Whitehead or Nicolai Hartmann), rationally incomprehensible. He finds its basis in "what Leibniz describes so happily as a 'pre-established harmony.'"[38]

This same metaphysical principle serves Einstein to explain why of the many possible systems in any epoch, only one is supremely applicable, even though historical development substitutes successively one system for another. The "metaphysical uncertainty" of the scientific method does not produce, as one might think, an infinite number of physical theories, all equally justifiable; "but evolution has shown that at any given moment, out of all conceivable constructions, a single one has always proved itself absolutely superior to all the rest."[39] The reason, for Einstein, is again Leibniz's principle. A deeper reason is that the innermost core of the phenomena, the infinitely distant symbolic point that is the axiom, even though it might be reached in many ways, is yet only one. As in the process of natural conception, only one thinker can be fortunate enough to penetrate it.

Einstein is not as explicit in the field of ethics as in the field of physics. Yet, he not only sees clearly that there must be a parallel development between "the laws of science and the laws of ethics," he also puts his finger on one of the fallacies that most obstinately obstruct the way to moral science. In two pages he puts down the fundamental principles that must govern any scientific ethics. They must "as all scientific work of a high order" rest on the "connection of the rationality and intelligibility of the world."[40] This conviction, almost religious, is not part of ethical science itself, but is the basis of all rational human activity.

The principles of the science of ethics are those of the scientific method applied to moral phenomena. Einstein makes clear that such application is possible only if the method and content of a science are strictly distinguished. "Science searches for relations which are thought to exist independently of the searching individual. This includes the case where man himself is the subject." Man—and here Einstein means moral human beings—is not excluded from the scientific endeavor. The science of moral persons must contain "statements and laws" like any other science, propositions that "are 'true' or 'false,'" and to which our reaction is "'yes' or 'no.'" *This science must be as detached from its subject matter as any other science.*

Einstein did not mention Spinoza's procedure of writing about human beings as though concerned with lines, planes, and solids, "laboring carefully not to mock, lament, or execrate, but to understand human actions,"—but well he could have. For the concepts that science "uses to build up its coherent systems are not expressing emotions. For the scientist, there is only 'being,' but no wishing, no valuing, no good, no evil, no goal. There is something like a Puritan's restraint in the scientist who seeks truth."[41] Even though the methods of moral scientists avoid emotion, commanding, wishing, valuing, mocking, lamenting, and execrating, their subject matter does not avoid them. On the contrary, emotions, commands, wishes, values, mockings, laments, and execrations are precisely what ethics is about. They are elements of the subject matter, but not of the methods, of moral scientists. Their science is about moral values, but it is not morally valuing—just as the science of botany is about roses but does not smell, the science of mechanics is about motion but does not move, and the science of thermodynamics is about heat but is not hot. This obvious difference between a science and its subject matter has not only frequently been overlooked, especially with respect to moral science, where confusing the two has been made into the very criterion of such a science. Frederick Sontag wrote,

> In ethics the subject matter is more important than the method by which it is treated. One conclusion seems to be that ethical questions can be detected by their tendency to involve the author and his methodology in the heart of the controversy. When writers become more detached and noncommittal, it is a sure sign that they must be moving further away from the goal of ethical inquiry. Ethics is characterized by the impossibility of detached neutrality.[42]

Sontag's article is an example of a valid criticism of analytic moral philosophy, combined with an invalid, naively empirical solution. Because ethics deals with human commitments, it is thought it must be committed. We have here the confusion of language and metalanguage that I call "the fallacy of method."

Einstein saw this danger. From the fact that the scientist must refrain from expressing emotions, value judgments, imperatives, and the like, "it might seem as if logical thinking were irrelevant for ethics. This conclusion is for Einstein erroneous. The error is what I call "the fallacy of method" and, in the present case, "the normative fallacy." A science as such cannot be emotive, exhortatory, or imperative; but it can—and moral science must—deal with emotions, commands, imperatives, and so forth, as if they were lines, planes, and solids. Moral science must be the formal structure that accounts for emotions, commands, imperatives, and such, just as geometry is the formal structure that accounts for lines, planes, and solids. But just as the geometrician is not solid, the axiologist is not imperative. This science is like any other; as far as the axiologist is concerned the reader may take it or leave it—subject, of course, to the sanctions contained in the science and known to the reader from her or his own experience.

The science that deals with moral subjects—or what appear to be such subjects, for only the science itself will define them as moral—cannot, according to Einstein, be natural science, the science "of facts and relations," which can never either deal with or "produce ethical directives." It must be a new science, with a different subject matter from natural science, but with the same structure and method. This science is possible, for

> ethical directives can be made rational and coherent by logical thinking and empirical knowledge. If we can agree on some fundamental ethical propositions, then other ethical propositions can be derived from them, provided that the original premises are stated with sufficient precision. Such ethical premises play a similar role in ethics, to that played by axioms in mathematics.[43]

3. Primary Qualities in Science and in Ethics

A. The Value Freedom of Value Science

One philosopher discussing the same subject with great thoroughness but less clarity is Everett W. Hall.[44] Hall sees with clarity the essence of the scientific method and describes it in detail, from Galileo to Einstein, but he fails to draw a positive moral for value theory. His thesis is thoroughly negative: value must be known as thoroughly as fact, but the scientific method that has brought us knowledge of fact can never bring us knowledge of value because fact and value are fundamentally different. Fact is known by science in a way that excludes value; hence, whatever the way may be by which value is known, it cannot be science. True, science has given the most powerful and incisive formulation to fact while value theory has done nothing

of the sort for value. Value theory must be brought up to the level of science; otherwise we are in danger of perishing under the impact of science. But how to bring this about, how to construct a value theory as powerful and as representative of value as science is of fact, is the question that Hall's book can only ask but not answer.

The reason is again the fallacy of method, specifically the normative fallacy against which Einstein warned. It already appears in the title of Hall's book, *Modern Science and Human Values*. The terms of this conjunction, "modern science" and "human values," are on two different logical levels. While the first part of the book does deal with modern science, that is, with the way modern scientists have understood natural phenomena, the second part deals, not with human values, but with the way ethicists, from St. Thomas Aquinas to G. E. Moore, have understood them. A correct title would be *Modern Science and Ethical Theory* or *Scientific Fact and Human Value*. The book is as little an analysis of values or other axiological phenomena as it is an analysis of motion or other scientific phenomena. It is a description of how ethicists have presented value and how scientists have presented facts, such as motion. It is, as the subtitle rightly states, a study in the history of ideas, but not a study of what the ideas are about. While "science" is a set of ideas, "human values" is a set of phenomena. The title thus expresses a transposition of logical levels: of the method of understanding a thing with a thing understood. Hall's failure to see this difference, his confusion of science itself with a subject matter, and hence of the relationship between science and a subject matter, is the reason for his failure to present a way out of the predicament he describes—the discrepancy between science and ethics in today's world.

If there is a difference between method and content, then no such simple conclusions as are drawn by Hall—that science deals with fact but not with value—may be drawn as a conclusion from the *method* of science to its *content*, and *vice versa*. That modern science deals with fact and medieval science dealt with value does not mean that it is part of the method of modern science to deal with fact and part of the method of medieval science to deal with value—that the method of modern science is applicable only to fact and that of medieval only to value, as their respective content. Rather, any science may be applicable to fact as well as to value, and this may be true for both medieval and modern science. To be sure, "fact" in modern science would be something entirely different from what it was in medieval science, and Hall himself hints at this;[45] value in modern science is something entirely different from what it was in medieval science, and this Hall is unable to see. He takes the historical facts that modern science, in the course of its development, destroyed the medieval value structure and that it never itself dealt with values, as the basis for an argument that, therefore, modern science is essentially incapable of dealing with value. But if there is more to value than what appeared in medieval philosophy, then the destruction of this value content by modern science does not mean that modern science is "value-free." It may still be value-relevant, that is, relevant to that aspect of value that was never part of medieval science. The argument of the book turns out to be a fallacy of the undistributed middle.

Although Hall makes crystal clear that he believes in a realm of values alongside and different from that of facts, and that it can be known as well as facts, he does not sufficiently analyze the terms involved—"value," "fact," and "science." By "fact" he understands what "actually is (has been or will be) the case" and by "value" what "is good or bad or ought to be or not."[46] This explanation, in what he calls a "terminological digression," is hardly more "helpful" than the alchemistic explanations Hall characterizes so well, for example, that of sleep as the dormitive quality or that of fire as the inflammable principle. Neither "fact" nor "value" is clearly defined, nor is "science."

Since not a single one of these terms is defined, what can it possibly mean to say, as Hall does, that the knowledge of value must be radically different from the knowledge of fact, which is science? We may well ask, quite innocently, why two "entirely different" things should not be accounted for by one and the same method. Certainly, there is "all the difference" between, say, dreams and bugs; yet, both are being dealt with by science, the first by psychoanalysis, the second by entomology. According to Hall, there is all the difference between fact and value. Why should they not both be accounted for by the same method? Because, answers Hall, the very facticity of science is based on its being value-free. "Scientific procedure has purified itself of value reasoning"; hence it cannot contribute, either positively or negatively, "a single assertion concerning value."[47] "Modern scientific method (as contrasted with medieval) has freed itself from explanation by goals or 'final causes,' as they were called; what can it offer us when applied to the study of human behavior?"[48] Hall thinks only of the content, not the method of science. He assumes but does not substantiate a certain Aristotelian view of value—that the essence of value consists of "goals" or "final causes." Thus, he sees no way out of our "serious predicament." He laments that

> We have a feeling of very deep insecurity, for we sense that, with the clear distinction of value from fact, we have lost the comfortable assurance that the nature of our universe or of ourselves, if properly grasped, will show us the right goals to seek and rules to obey. The successes of a value-free scientific mode of thought have, not merely by contrast with, but even more by the destruction of, the medieval approach, left us high and dry.[49]

The main reason for Hall's difficulty finding, or at least sketching out, a plausible solution for the problem of value-knowledge lies in his confusing the method with the content of science, the fallacy of method. Since science is "value-free," he believes, it cannot deal with value. He does not see that knowledge of value means, precisely, to deal in a value-free way with values. There is no difference, *qua scientia*, in the scientific analysis of fact and of value. Whatever I scientifically analyze, I must analyze thoroughly, precisely, comprehensively, detachedly, and in such a way that the resulting judgments are synthetic *a priori* in the Kantian sense.

A method always is an *accounting for* and a content, whether fact or value, *something accounted for*. The scientific method is no more or less than the accounting for some content by the synthetic method in the Kantian sense. This content may be a fact, like falling down stairs, or it may be a value, like prayer. Both are subject to, and different from, their analysis; a physicist who falls down stairs is not analyzing gravity, and a theologian who analyzes prayer is not praying. This fundamental relation between content and method is the same whether the content analyzed is a fact or a value. It does not make any difference to the scientific method to what content it is applied. The only thing the content does to the method is to qualify it—to give to the genus science *a priori* synthetic knowledge—a differentia which specifies particular sciences. The scientific method applied to fact specifies natural science, and the scientific method applied to value specifies moral science. But both natural science and moral science are species of science, which is pure method, independent of any specific content.

Hall, in confusing the method and content of science, confuses science in general with the species of natural science. Hence, he overvalues the uniqueness of what Galileo, Newton, *et al.* did. Exactly what they did for *fact*, future moral scientists can, and must, do for *value*. Hall admirably presents the details of the scientific method as applied to natural phenomena, such as motion. A value theoretician can take his account, for example, of Galileo's achievement and use it as a blueprint for doing to value what Galileo did to motion.

The essence of the scientific method, as Hall makes clear, is to break up the sense properties (secondary qualities) of phenomena into systematic elements (primary qualities) and reconstitute the phenomena in terms of these elements. This, as Hall fails to observe, is the method of *any* exact science, not just natural science. The science of music, for example, breaks up the musical sense phenomena (secondary qualities) of music—sounds—into primary qualities—notes, clefs, intervals, scales, chords, and so on, with their own system of co-ordinates, braces—and reconstitutes music in terms of these as a system called "Harmony." The science of harmony is to music as the science of mathematics is to physics; so profound is the similarity between the two that the laws of planetary motion found their first complete scientific formulation in the mathematics of musical harmony.[50]

The system in terms of which natural science reconstitutes its phenomena is mathematics. The elements into which it breaks up its sense observation are measurable quantities, that is, elements of geometry, analysis, and such. In general, any science breaks up its observational phenomena into elements of some system and reconstitutes its phenomena in terms of this system. While natural science reconstituted its common sense phenomena in terms of mathematics, and music reconstituted its common sense phenomena in terms of harmony, moral science breaks down its common sense phenomena—values—in terms of the primary qualities of some other system, which I call "axiology," and reconstitutes the phenomena, values, in terms of this system. Hall's quest then comes down to the search for axiology as a system

that does for value phenomena what mathematics has done for natural phenomena and harmony for musical phenomena.

This result fairly leaps into view when reading Hall's accounts of science and of value theory. That it remained hidden to Hall himself has its ground in his failure to generalize his observations and thus to analyze conceptually what he substantiates historically. One of his observations is that science, in the process of establishing fact, progressively disestablished value. A conceptual analysis would have shown, and actually does show in Hall's account, that the disestablishment of value was not an essential but merely an accidental feature of science, an historical coincidence, whose connection with the essence of science—the transformation of secondary sense observations into systems of primary qualities—Hall investigates only cursorily. Hence the erroneous argument and conclusion: since fact and value are different, and since science deals with fact, therefore science cannot deal with value. The fallacy of this syllogism is obvious: Science in general does not deal with fact but with anything; only the species of natural science deals with fact exclusively. This does not mean that science itself, the genus of which natural science is a species, cannot deal with value. Hall, in neglecting to see this, commits the very error he blames the positivists for: regarding natural science as the only possible science. Once the difference between science in general as pure method, and its species, natural science, moral science, and so on is understood, the road blueprinted by Hall becomes a highway to the solution of the value problem. He stands, and so do all of us who pursue the elusive goal of a value discipline, at the fork of the roads. One road leads to the reality of value, the other to fantasies about value. One road, to consider the historical parallel, leads to Pisa, the other to La Mancha. The first is the synthetic direction, the second the analytic.

Hall sees clearly that something similar to what natural science has done for fact must be done for value.

> Western man today has achieved an exceedingly powerful tool for discovering facts and factual laws. He has attained nothing comparable in the area of value, although he has made some progress here in clearing his mind of factual thinking. If he can cling to the conviction that there are values in the world until he can work out a reliable technique for discovering them concretely, he may survive.[51]

The process that led from Galileo to Einstein is "an unending tendency to build mathematically away from foundations in sense experience in order to state precisely as many uniformities in as few generalized laws as possible."[52] This process, by which questions of fact were separated from questions of value, must now find its "reverse aspect, as it were," the process "whereby value questions have been separated from factual, has not been accompanied by a comparable success in the construction of a method of ascertaining them."[53] We need a Galilean revolution in value theory; value theory still deals with pre-Galilean, medieval concepts.

> *Nothing like Galilean science has emerged in the investigation of values; we must, so to speak, be content to manage with concepts that are still quite medieval in character*....The sense of utter foreignness that was engendered when we tried to apprehend thirteenth-century ideas on motion will probably not return to plague us as we attempt to appreciate the outlook of this era on questions of morals. Nothing at all comparable to the scientific revolution of the seventeenth-century has come in to reshape our ideas on the good life; the medieval standpoint to many seems a real alternative even today.[54]

It is "something basic" that we have today "the amazing success of modern science in developing a method of establishing factual statements," coupled with "the almost complete failure in the value disciplines to accomplish anything analogous in their realm."[55] Says Hall, "Truly arduous labor must go into the perfection of any procedures which can do for our ascertainment of values what modern scientific method has done for our knowledge of facts."[56]

B. The "Galilean Revolution" in Value Science

How then is this "analogy" in the value realm, this Galilean revolution of axiology, to be brought about? The natural course would obviously be to apply the method of Galileo to the field of value. But such a procedure appears to Hall as "witless."[57] It would simply be "taking scientific method and substituting value terms for factual. This would...save the distinction of value from fact only verbally."[58] Hall is not of the naive scientific school of axiologists—"I think of the late John Dewey as an example"—who believe "that our basic trouble is that we haven't developed the social sciences adequately, that their application of the scientific method so successfully achieved by the physical sciences, should be brought up to a level somewhat nearer to equilibrium with the latter."[59] "People who advocate the use of scientific method in ethics, aesthetics, or jurisprudence are simply trying to modernize medievalism."[60]

Hall belongs to that sophisticated school that, "agreeing with the positivists in denying that values can be investigated by the method of modern science, claims that there are values and that, by a different method, they can be known."[61] "A reliable method of determining value must differ quite radically from any appropriate procedure for ascertaining fact."[62] If we want to understand values we must do so by a method different from the scientific; and, since Hall confuses natural science with science in general, he stops here; his book, he says, is "a story with an unhappy ending."[63]

Actually, all that is needed to break the impasse is to recognize that what is true of *natural* science is, for that matter, not true of *science*. This will become clear if we give a Galilean explanation to Hall's problem. This problem is that of value, as Galileo's was that of motion. Let us remember first how Hall and then how Galileo tackled his problem.

Hall, as we have seen, never discusses *value*, the actual phenomenon; he only discusses what others have said about it. "As I shall try to make perfectly clear, medieval physics was a study of values of goal behavior on nature's part."[64] Here "value" is identified with "goal behavior"; later it is connected with "attention, interest";[65] and in the "terminological digression" mentioned previously it is regarded as what is "good," "bad," or "ought to be or not." The relationship between these various versions of "value" is not discussed. He approaches value problem as the Aristotelians approached the problem of motion—by tacking not the phenomenon, but only texts about it.

This procedure was the one for which Galileo reserved his bitterest scorn. Nothing was to him more "revolting" than the reference to texts when it was a matter of life, and nothing was less "philosophical." "Our discourse must relate to the sensible world and not to one of paper...."[66] The first thing a philosopher of nature must do, according to Galileo, is to study the phenomena rather than reading books about them. There is no reason why this ought not also to be the first duty of value philosophers. They should study the phenomena of value rather than books about them, values rather than value analyses. As Galileo in his "reading" found letters never seen before, so value philosophers ought to find in the value world letters never seen before that would decipher its hidden meaning.

The characteristic of the Galilean method, as Hall makes clear, is his insight into the hidden, non-commonsensical essence of the phenomena. Thus, he formulates motion

> in terms of concepts (namely distance and time and the mathematical operation of division) that did not themselves presuppose it. Motion for Galileo was thus essentially a defined idea. Observationally, you are not to look for it but for locations and times. Here is a fundamental difference. For the Aristotelian you are not to look for potentialities and actualities and then combine these observations according to a definition—rather, change is there, ultimately and in its own right, just to be seen.[67]

If this is the essence of the scientific method then the "value freedom" of this method is merely a negative accident that is in no way characteristic of it. Its characteristic is rather its non-commonsensical constructiveness—its breaking down of secondary into primary qualities and its use of the geometrical method in the reconstruction of the phenomena. Galileo's great achievement, as Hall makes clear, is "that he 'geometrized motion' as the Aristotelian did not and could not do"[68]—that he broke down the common sense notions of Aristotle, characterized by Aristotle's famous example of the horse and the cart, into differential elements which became susceptible to mathematical treatment.

> The importance of this does not lie simply in the introduction of quantitative procedures, in the use of mensuration in the observation of motions; its full

> consequence is found only when we note that it brought in a new type of concept involving a different relation to direct experience. Concepts of this sort did not purport to represent items of direct experience, things subject to observation in their own right. Rather, they were built up mathematically from such data; they were 'functions' whose 'values' could be ascertained only by the observational determination of the values of their 'agents,' to use the mathematicians' language.[69]

Instead of analyzing and generalizing this synthetic procedure and saying that any scientific knowledge consists in breaking down common sense impression into elements that are susceptible to systematic ordering, as Galileo himself had recognized, Hall uses the so called value character of secondary properties—and hence the opposition between science and medieval ethics and theology—to show that, therefore, "science" cannot deal with values. Instead of drawing the conclusion from what he shows to be the essence of science for a science of values, Hall lets himself be led astray by a verbal relation between science and value—the "value freedom of modern science"—and goes off on a tangent, to use a contextual metaphor, that does not let him return to the true direction of the curve. He misses, so to speak, the right turn, fails to see the angle that counts, and overlooks the differential quotient of scientific axiology. If the essence of science is its substitution of secondary qualities by primary qualities susceptible to systematic ordering, the solution of the value problem would be to break up the secondary qualities of value into primary value qualities that are susceptible to systemic ordering—an order not, indeed, of mathematics but of the "new logic and methodology" that Hall demands. In this way, what Galileo did for fact could be done for value.

Hall, led astray by the semantic confusion in question, did not see this true Galilean possibility. In a kind of pre-Galilean ingenuity, he regards as relevant the old value terms that yet may be nothing but secondary value qualities to be overthrown by a Galilean axiology, as Galileo overthrew the violent and natural motions and the other archaic apparatus of Aristotle. These consequences were made clear by Susanne K. Langer in the same year that Einstein explicated the nature of the scientific method.[70]

> Ethics, which is one of the oldest of philosophical interests, has not profited in the least from the new physical doctrines. It is in fact, not only Cartesian, but archaic—it has not outgrown the original formulations of Socrates. Ethics has no efficient basic concept. It still banks upon the first producers of analysis, abstractions which are obvious, and as these cannot transcend common sense, the whole structure cannot transcend the mythical stage....
>
> The notion of 'values' plays the same part in our ethics and aesthetics as that of "forces" in early physics. Primitive physics began with the concepts of hard and soft, wet and dry; only at an advanced state in its evolution, physicists

> realized that such empirical phenomena were the things to be accounted for, not the ultimate terms of description. The basic concepts of physics are not matter and its qualities, but certain conceptual elements which are not themselves material or qualitative. Our first attempt at analysis is always by *division....*
>
> But scientific understanding dates from the discovery of *functional* wholes—not of the particles that compose a whole, and share its essential properties, but of the abstractable elements that must enter into relation with one another in order to *produce* a totality which they do not in themselves resemble. Protons and electrons do not resemble the physical objects of our acquaintance, but their inter-relations are the basis of the properties we can observe in the material world. Likewise in ethics and aesthetics it seems probable that really powerful scientific concepts will not have the obvious properties of value-phenomena themselves.[71]

In other words, science advances from analytic to synthetic concepts and should do so not only in the factual but also in the value realm. Langer agrees completely with Hall that values are fundamentally different from facts and need a special method for their understanding. But she does not draw from this the conclusion that sound methodological, that is, scientific reasoning cannot be applied. On the contrary, for this very reason it ought to be applied with so much more perspicacity. As Langer indicates,

> Ethics and aesthetics cannot advance to a theoretical state as long as their basic concepts, *i.e.* their abstractions, are the very properties of things they ought to account for. As long as we try to describe 'the Good' by classifying examples of goodness according to types of goodness, or define 'the Beautiful' by arranging beautiful things in order of their beauty, we are systematically begging the question of description and definition. We are increasing our acquaintance with the material, but not our under standing of it.[72]

Hall does indeed increase our acquaintance with the material, but he does not give us any basic insight in the sense required by Langer. He acquaints us with the scientific method, but without any axiologically relevant analysis.

Combining scientific method with ethical material would mean, first of all, seeing the material as a whole, not merely as a collection of unrelated items, and isolating from this whole the primary qualities—call them x and y—that constitute its essence. These primary qualities of value cannot be found in any other way than were those of fact: by steeping oneself in the phenomena and, in creative *Wesensschau*, finding their essence. In this way, Value, as motion for Galileo, must become, to paraphrase Hall,[73] *essentially* a defined idea. Observationally, you are not to look for it, but for x and y. Here is a fundamental differ-

ence with traditional ethics. For the Aristotelian you are not to look for potentialities and actualities and then combine these observations according to a definition. Rather, Value is there—ultimately, and in its own right.

The science of value must thus be a construct, just as is the science of motion. It must consist of synthetic rather than analytic concepts; this means, precisely, that its subject matter must have primary rather than secondary qualities. Aristotelian physics was not unscientific because it dealt with values; it was unscientific because, and in so far as, it dealt with secondary rather than primary qualities of movement. A value science is not unscientific because it deals with values; it is unscientific because, and in so far as, it deals with secondary rather than primary value qualities. Galilean mechanics was not scientific because it dealt with motions rather than values; it was scientific because it dealt with primary rather than secondary qualities of motion. In exactly the same way, a "Galilean" science of value can be scientific only to the degree that it deals with the primary rather than secondary qualities of value. Just as value was a secondary quality of motion and hence unscientific with respect to the primary qualities of motion, so motion—or emotion!—is a secondary quality of value and is unscientific with respect to the primary qualities of value.

Primary qualities are precisely those that correspond to the third level of language, whether of fact or of value. In the field of value, there is one, and a rather tentative, third-level analysis. Yet, it is precisely the one that arrived at primary value qualities. This is the work of G. E. Moore. As distinct from the writings of those who pretend to be following him, Moore was no Moorean! From the perspective of axiology, Moore's work forms the transition from second- to third- level value language. He not only criticizes analytic value theories—where propositions with the predicate "good" are analytic—but proceeds to the constructive task of defining the axiom for a third-level value language—where such propositions are synthetic *a priori*. His work thus spans the whole range from critique of analytic value philosophies to the construction of a synthetic value science.

To this work we must now turn.

Four

MOORE'S METAETHICS: THE SCIENCE OF GOOD

The direct object of Ethics is knowledge and not practice.... It is with reasons *that we are chiefly concerned in any scientific Ethics.*[1] G. E. Moore

Those who have labored at the task of collecting and classifying value theories have ordered them in admittedly arbitrary ways or, at least, in no systematic fashion.[2] In their collection of *Readings in Ethical Theory*, Wilfrid Sellars and John Hospers, after an introductory essay by Bertrand Russell on "The Elements of Ethics," and G. E. Moore's "Utilitarianism" as "a sample ethical theory,"[3] turn to Moore's naturalistic fallacy.[4] They then proceed through "the development of ethical intuition," the "naturalistic rejoinder," the "emotive theory," "the psychology of conduct and the concept of obligation," "moral freedom, guilt, and responsibility," to "the problem of justification." Sellars and Hospers are aware of the haphazard nature not only of their classification as a whole, but also of that of assigning certain essays to one rather than to another section. Thomas Hill arranges the subject "in terms of...the meanings of the moral predicates" in the following six sections:

> *Skeptical* theories, according to which ethical predicates have no intelligible meaning at all but are merely emotive expressions;
>
> *Approbative* theories, in which these predicates are partly intellectual and partly emotional approvals and disapprovals;
>
> *Process* theories, in which moral concepts refer to the furthering of some observable dynamic process which, being always incomplete, forbids fixed moral definition;
>
> *Psychological Value* theories, in which good refers to psychological states of desire, interest, or feeling, while right refers to their promotion;
>
> *Metaphysical* theories, in which moral concepts refer to relations to such ultimate being as cannot be empirically apprehended;
>
> *Intuitive* theories, in which one or more moral predicates are unique and, though applicable to specific kinds of experience, not reducible to them.[5]

Hill ends his classification where Sellars and Hospers begin theirs, with Moore and the intuitionist.

Moore's theory has a distinguished place both in Sellars and Hospers as a point of departure and in Hill as a point of arrival—but for different reasons, which may be called chronological and logical, respectively. Sellars and Hospers

begin with Moore simply because he started the present phase of ethical debate, and it was their aim "to provide a balanced and first-hand account of the theoretical controversies that have developed in ethics since the publication in 1903 of Moore's *Principia Ethica*."[6] Hill regards Moore's theory as more systematic than the other theories in two respects, (1) its coherent interpretation of moral experience and (2) its coherent interpretation of interpretations of that experience.

This formulation makes evident what a language of value ought to be and why the classifications of value theories so far have not been systematic. If the ideal language of value ought to surpass other languages of value in its power not only of interpreting moral experience but also its power of interpreting interpretations of such experience, it must be the ethical theory that is on the highest level of discourse. Moore called a language the subject matter of which is a moral experience an "Ethics." A language whose subject matter is an ethics is a "meta-ethics" and one whose subject matter is a meta-ethics a "meta-meta-ethics." The language of value must at least be a meta-meta-ethics.

This fact—or rather "ought"—makes clear why classifications of ethical theories thus far have not arrived at a systematic order. A meta-meta-ethics, as any "meta-meta," must be more formal than either an ethics or a meta-ethics. The only arrangement that could arrive at a systematization of ethical theories would be a *formal* arrangement, that is, one that arranges these theories not according to their content but according to their form. Both Sellars and Hospers, and Hill arrange these theories according to content and not form. This is important not only for understanding the connections between these theories, but also for understanding these theories themselves. The material viewpoint is apt to misunderstand the particular significance of a value theory. Hill, although he does recognize and describe the superiority of Moore's theory and the corresponding inferiority of the other theories, misunderstands the reason for the superiority of Moore's theory and the inferiority of the other theories: the formal nature of Moore's theory. It is on a higher level of discourse than the other five theories; it deals not with things that are good but with the predicate "good." It is meta-ethics rather than ethics. Recall that for Brand Blanshard the higher abstraction of Moore's theory is its failure rather than its merit.

Thus, already from the outset, Moore's theory is superior to interpretations of moral experience on the level of ethics. It is not, however, a meta-meta-ethics. This it would be if it were able completely, coherently, and consistently to analyze in its own terms not only all the other value languages, but also the value experience itself. In that case it would be the system of value which the ideal value language ought to be. It would be on the third, not the second, level of value analysis. Whereas the third level is autonomous and *creative of* value language—in analyzing other value languages in its own terms and according to its own systematic—the second level is general enough to *analyze* first-level descriptions of value experience but not coherent and consistent enough to *systematize* them. Moore's value theory is general enough to analyze empirical

value languages, but not systematic enough to order them autonomously. Moore was well aware of this. He wrote *Principia Ethica* not as the future systematic science of ethics but as the prolegomena to such a science: "I have endeavored to write 'Prolegomena to any future Ethics that can possibly pretend to be scientific.'"[7] He opened up Ethics; he did not give it systematic closure. All he wanted to do was to keep Ethics open to investigation and not to preclude its study through initial definition of its fundamental term.[8] His theory was a promise and a pointer—a meta-ethics pointing toward a meta-meta-ethics. Ludwig Wittgenstein said, "What Moore primarily did, as a philosopher, was to 'destroy premature solutions' of philosophical problems."[9] If Hill's opinion about the promise of Moore's theory is correct,[10] then Moore achieved what he set out to do.

Actually, he achieved much more than either he or any of his interpreters supposed. He laid the foundations of a science of Good.

1. Moore's Axiomatic of the Science of Ethics

Moore's doctrine of the undefinability of good has occasionally been misunderstood as meaning that good is indefinable because it is not clear, that it *could* not be clear because it is not accessible to rational understanding. Even Moore himself (in his debate with Charles L. Stevenson)[11] for a very short moment in his life[12] doubted that it was and faltered in his intuition of the self-evident clarity of this notion. Compare his doubt about his theory that good is an object like number with Gottlob Frege's doubt about his theory that numbers are objects.[13] With this one exception, he steadfastly kept to the conviction expressed in *Principia Ethica* that the notion of good is so simple as to be incapable of proof, so transparently clear as to be in no need of proof, so self-evident as to be understood as soon as it is mentioned (at least to non-philosophers[14]), so unique as to belong to nothing but Ethics, and so fundamental as to serve as basis for a systematic science.

Anyone familiar with the concept of a systematic science, on reading Moore's account, ought immediately to conclude that his notion of good had all the characteristics of an *axiom*, and that all that is needed to bring about the systematic science of Ethics would be to articulate this notion so as to form this axiom and to deduce the science from it. But nobody, so far, including Moore, has seriously entertained this idea, and no one has drawn its consequences. Yet, and this is the burden of this chapter, Moore developed his original notion of good as if it were the concept of an axiom; and he actually gave a formula that could constitute the axiom of a future science of Ethics.

Although *Principia Ethica* arose from the study of Immanuel Kant's Ethics, Moore's model of a science is not Kant's moral science, but Sir Isaac Newton's natural science. In writing "Prolegomena to any future Ethics that can possibly pretend to be scientific," Moore paraphrased Kant's foundation of pure, not of practical, Reason. The title of *Principia Ethica* follows Newton's title, *Principia*

Mathematica. As Newton conceived of a systematic science of nature, so Moore, equally clearly but incomparably less distinctly, conceived of a systematic science of Ethics. As Newton laid the foundations of his science in *Philosophiae Naturalis Principia Mathematica*, so Moore wrote the "Prolegomena" to his in *Principia Ethica*, that is, *Philosophiae Moralis Principia Ethica*. He conceived of Ethics as the systematic frame of reference that orders moral phenomena as mathematics, according to Newton and Kant, orders natural phenomena. Good, says Moore, is the basic notion of the systematic science of Ethics. It belongs to the same class of objects as does number.[15] Moore did not hold, as did Plato, Alfred North Whitehead, and others that goodness and number are one and the same, but only that they are of the same kind. Though he rarely bothers about the relation between number and goodness,[16] as Plato and Whitehead did on principle, Moore certainly would agree that *as Number is the basis of the system of Mathematics, so Goodness is the basis of the system of Ethics*.

The structure of the science of Ethics is to parallel that of such "sciences as physics, chemistry, and physiology in their absolute distinction from those of which history and geography are instances."[17] "These latter are sciences which deal with unique, individual, absolutely particular fact,"[18] while "the subjects of the judgments of a scientific Ethics are not...'particular things'; but it includes all universal judgments which assert the relation of 'goodness' to any subject."[19] The science of Ethics does not merely deal with good conduct, or with this or that which is good; it deals with goodness itself. "I am using [Ethics] to cover an enquiry for which, at all events, there is no other word: *The general enquiry into what is good*."[20] This science should be applicable to anything called good, whether individual things or classes of things. In the first case, the ethical system must contain reasons and principles sufficient for deciding on the truth "of all the many million answers" given to the question "What is good?" when it is said: "This is good." But, strictly speaking, "this is not the sense in which a scientific Ethics asks the question," just as, strictly speaking, it is not the meaning of physics to ask what is the strength of this particular dam. Rather, scientific Ethics is concerned with the general question "What is good?" applied to classes of things, for example, whether the enjoyment of pleasure is good—just as physics is concerned in hydrodynamics with the general question of the forces of water against any kind of dam. The application of Ethics to such general questions is Casuistry. Ethics, thus, is the theoretical science, while Casuistry is the corresponding applied science. Both alike deal with what is general, in the sense in which physics and chemistry deal with what is general.

Besides the application of Ethics to individual and general value situations, there is Ethics itself, based on a third meaning of the question "What is a good?" in the sense of "not what thing or things are good, but how 'good' is to be defined."[21] This question is different in kind from the first two. In the answers to the first two, "good" is the predicate, whereas in the answer to the third "good" is no predicate, but either the subject, if the answer is "Good is...," or

the *definiendum* of a definition. The science that deals with this third question, therefore, is different in *kind* from Casuistry. It is Ethics proper. How "good" is to be defined "is an inquiry which belongs only to Ethics, not to Casuistry."[22] Casuistry is the goal of ethical investigation, not its beginning. The beginning is the definition of "good."

What then, methodologically is this "good" that is to be "the notion upon which all Ethics depends?"[23] It cannot be anything else but the *axiom* from which this science is to be deduced, so that the system itself is to be the structurization of that notion. At the same time, "good" must appear in the system as that variable which, applied to every case of goodness, determines the correctness of this application—just as, say, "force" in physics is that variable which, applied to every case of force, determines the correctness of this application—and at the same time forms the axiom of the Newtonian system.

This conclusion is inescapable if what Moore says about "good" and its role in the science of Ethics is to be taken seriously. No doubt, Moore takes seriously what he says; and, according to him, good has all the characteristics of the axiom of that science.

> This question, how 'good' is to be defined, is *the most fundamental question in all Ethics*. That which is meant by 'good' is in fact, except its converse 'bad,' the *only* single object of thought which is peculiar to Ethics. *Its definition is, therefore, the most essential point in the definition of Ethics*....Unless this first question be fully understood, and its true answer clearly recognized, the rest of Ethics is *as good as useless from the point of view of systematic knowledge*....It is extremely unlikely that the *most general* ethical judgments will be valid in the absence of a true answer to this question. And, in any case, it is impossible that, till the answer to this question be known, anyone should know *what is the evidence* for any ethical judgment whatsoever. But the main object of Ethics, as a systematic science, is to give correct *reasons* for thinking that this or that is good; and unless this question be answered, such reasons cannot be given. Even, therefore, apart from the fact that a false answer leads to false conclusions, the present inquiry is a most necessary and important part of the science of Ethics.[24]

Moore maintains that Ethics is to be a systematic science, it is to be applied to all cases of goodness, and it is to be based on the notion "good." It is difficult not to conclude from these statements that the notion of "good" is to form the *axiom of the science of Ethics*. If this is conceded, then important consequences follow. (1) As force is in physics a formula applicable to physical reality, so "good" in Ethics must be a formula applicable to moral reality. (2) Since no such formula can be applied by itself but each scientific application of a formula involves the application of the whole system of which it forms a part,[25] in each

application of "good" the whole system of Ethics must be applied. (3) This means that this system must be so structured as to cover the whole field of value phenomena, just as physics is so structured as to cover the whole field of physical phenomena. Ethics, in other words, must be isomorphous with value reality. (4) The variable "good" within this system determines *what* things, and *that* things, are good. "Good," in other words, is that variable whose values are goods.

We must examine how Moore's science of Ethics can fulfill all these requirements. To do so we must start with the axiomatic role Moore outlines for "good."

To summarize, an axiom is defined as a formula that gives rise to a frame of reference applicable to reality. By a frame of reference I mean *any formal system*. A frame of reference applicable to reality is then the *theoretical* part of an exact science, a science such as physics and chemistry, "in their absolute distinction from those of which history and geography are instances." The *practical* part of such a science is the reality interpreted by the frame of reference in question. To use notions of conceptual logic, the theoretical part of the science may be regarded as the intension, and the practical part as the extension, of the axiom; in this way, an exact science may be sufficiently defined as the *intension and extension of an axiom*.[26]

The intension and extension of an axiom vary in *direct* proportion, whereas those of a concept vary in *inverse* proportion. As the extension, or applicability, of a science grows, so grows its theoretical framework in intension, that is, complexity.[27] The axiom comes about by the identification of the core of a phenomenal field with the element of a formal system. For example, the science of optics is based on the identification of a ray of light with a straight line. The ray of light is the core phenomenon of the optical field, and the straight line is an element of the system of geometry. By this identification geometry becomes applicable to rays of light, and optics becomes possible. Every exact science is based on such an *axiomatic identification*. In order for phenomena to be equated with a formal element (or a set of such elements), they must appear in such a form as to be accessible to symbolic manipulation; they must appear as configurations of symbolic characters. These symbolic characters represent their primary properties. The axiom of an exact science is an equation containing sets of primary properties combined with sets of formal elements.

To create an exact science three principal steps are necessary: to break down the phenomena and their secondary properties into primary properties, to find the axiomatic identification in question, and to build up again the subject in the new form prescribed by the axiom. This is the classic method of resolution and composition, of analysis and synthesis, described by scientists such as Galileo Galilei,[28] Sir Isaac Newton,[29] and Albert Einstein;[30] by philosophers such as René Descartes,[31] Gottfried Wilhelm Leibniz,[32] Immanuel Kant,[33] and Nicolai Hartmann;[34] by mathematicians such as Jacques Hadamard[35] and Raymond Poin-

caré;[36] and by the psychologists of creative thinking.[37] Many of these authors made significant contributions to understanding the process of axiomatization in its logical, epistemological, or psychological aspects. Descartes contributed the doctrine of the simples, Leibniz that of identities. Kant contributed the difference between the analytic and synthetic methods (philosophy and science, respectively), with their respective concepts, the abstracted and the constructed; their respective definitions, the analytic and the synthetic (the axiomatic); and their respective judgments, analytic, synthetic, and synthetic *a priori*. Nicolai Hartmann contributed the doctrine of conspective and stigmatic intuition, and the psychologists that of the five stages of the process: Preparation, Frustration, Incubation, Illumination, and Verification.

Moore himself made use of the analytic-synthetic method. His two great discoveries, the naturalistic fallacy and the syntheticity of all propositions with "good," are both based on this method. To understand fully Moore's contribution to and position in the making of a systematic Ethics, *all* aspects of the method ought to be investigated. Then we can determine with precision how clear was his vision of that science, how far he came in the process of analysis of moral phenomena, how far in the identification of the axiom of the science, and how far in its synthesis.

Such an investigation is beyond the scope of this chapter, but the principal results will now be presented. Moore completed the first stages of the process—analysis—and reached about half-way into the second stage, that of axiomatic identification, without fully completing the identification. He said that "good" *depends on* the descriptive properties of the thing in question, even that it *follows from* them, but not that it *is* this set of descriptive properties. He clearly but not distinctly recognized the axiomatic character of what he said about "good" for the science of Ethics that he projected. He did not begin the actual construction of that science and was aggressively incomprehensive of others' attempts to find a logical structure in his writings on value.[38] We shall next examine in detail how far Moore's notion of "good" has the characteristics of an axiom for the science of Ethics.

Every creator of a science must be convinced of the following requirements: (1) the science is possible and its primitive notion knowable; (2) propositions with this notion are self-evident; (3) all propositions of the science must rest for their evidence on such self-evident propositions; (4) all propositions of the science are synthetic (indeed, synthetic *a priori*); (5) the primitive notion is subject to formal structurization; and (6) the formula of such structurization must be provided.

Moore's account of the notion of good fulfills all these requirements, even the sixth, in the following ways:

A. Moore's "good" is unknown but not unknowable.

B. Propositions with "good" are self-evident.

C. All ethical propositions must rest for their evidence "upon some proposition which must be simply accepted or rejected."
D. All propositions with "good" are synthetic.
E. "Good" is subject to formal structurization.
F. The formula for this structurization is provided by Moore.

Let us discuss each of these points in turn.

A. "Good" is Unknown but Not Unknowable.

The indefinability of "good" is based, in Moore, on two observations: (a) good is so simple a notion that it *cannot* be defined and (b) it is so clear a notion that it *need not* be defined. Neither of these means that good cannot be known beyond the immediate intuition of it. On the contrary, if this intuition is *clear*, then it must also be capable of becoming distinct. And if it is to be the basis of a systematic science then it *must* be made distinct. As Leibniz indicated,

> Knowledge is either *obscure* or *clear*; clear knowledge is either *confused* or *distinct*....A concept is *obscure* which does not suffice for recognizing the thing represented, as when I merely remember some flower or animal which I have once seen but not well enough to recognize it when it is placed before me and to distinguish it from similar ones; or when I consider some term which the Scholastics had defined poorly, such as Aristotle's *entelechy*,...or other such terms of which we have no sure definition. A proposition also becomes obscure when it contains such a concept.
>
> Knowledge is *clear*, therefore, when it makes it possible for me to recognize the thing represented. Clear knowledge, in turn, is either confused or distinct. It is *confused* when I cannot enumerate one by one the marks which are sufficient to distinguish the thing from others, even though the thing may in truth have such marks and constituents into which its concept can be resolved. Thus we know colors, odors, flavors, and other particular objects of the senses clearly enough and discern them from each other but only by the simple evidence of the senses and not by marks that can be expressed. Yet it is certain that the concepts of these qualities are composite and can be resolved, for they certainly have their causes.[39]

Kant and Leibniz both recognized that *distinct* knowledge may either be analytic or synthetic. It is *analytic* when I succeed in enumerating "one by one the marks which are sufficient to distinguish the thing from other"; it is *synthetic* when

> there are no marks but I obtain these only by synthesis. Out of this synthetic procedure arises the synthetic distinctness which augments my

> concept through additional marks found beyond it in (pure or empirical) intuition. This synthetic procedure of making a distinct concept is used in mathematics and in natural science,

whereas the analytic procedure, of "making a concept distinct," is used in philosophy.[40]

Let us apply these canons to the kind of knowledge Moore has of good. Obviously, it is clear, but confused. Moore knows clearly *that* there is good, but he does not discern distinctly *what* it is. He does not distinguish its features. How could it become distinct? Not analytically, for, as Moore insists, good is a simple notion and has no parts. Thus, it can be made distinct only synthetically. This means that its differentiation would result in a science such as mathematics and natural science—precisely the kind of science that for Moore is the prototype of the sciences of Ethics and Casuistry. Instead of making the notion of "good" distinct, the task is to make a distinct such notion, not to recognize what is given in the notion, but to construct such a notion, and this is a matter not of analysis but of synthesis. The result would be a *new deductive science,* not simply discerning common properties in empirical data.

Moore envisages precisely such a science—not an empirical science like geography, but a systematic one like physics. This science must give exact and explicit knowledge of the moral realm. "It is the business of Ethics, I must insist, not only to obtain true results, but also to find *valid reasons for them. The direct object of Ethics is knowledge and not practice.*"[41] But *if* Ethics is to be a systematic science, and *if* it is to give this kind of knowledge, and *if* this science is to be based on the notion of good, then this notion must be capable of elaboration; for a systematic science is systematic precisely by virtue of *its fundamental notion being systematically developed.* If all that can be said of good is that it is good "and that is the end of the matter," then this would necessarily be the end of the "science" of Goodness.

Moore's argument against naturalism is that it obstructs scientific ethical knowledge; naturalism is not distinct but confused, and it is not even clear—not even indistinctly—but obscure: "It offers *no reason at all, far less any valid reason*, for any ethical principles whatever; and in this it already fails to satisfy the requirements of *Ethics, as a scientific study.*"[42] In offering "no reason at all" for "any ethical principle whatever" naturalism—as indeed any pre-scientific, that is pre-Moorean, ethics—does not see the subject matter of Ethics at all clearly but merely obscurely, as a term "poorly defined," not only in Aristotle and the Scholastics, but "in almost every book on Ethics."[43] In seeing Ethics obscurely and not clearly, naturalists can "far less" give any *valid* reasons for it. What obstructs the philosophers'—as against the ethical scientists'—vision of goodness pure and simple is a fundamental logical confusion: they confuse goodness with what is good; thus they confuse predicate with subject, genus with

species, one logical type with another. It is like defining an orange as yellow and holding "that nothing can be yellow but an orange."

> We should not get very far with our science, if we are bound to hold that everything which was yellow, meant exactly the same thing as yellow. We should find we had to hold that an orange was exactly the same thing as a stool, a piece of paper, a lemon, anything you like. We could prove any number of absurdities; but should we be nearer the truth? Why, then, should it be different with 'good'?[44]

The naturalistic fallacy was discovered by Moore precisely in his effort to bring orderly thinking into the subject matter of Ethics. It is a legitimate fallacy, and it is the characteristic of post-Moorean ethics to have either ignored or misunderstood it, and, in any case, to have continued to commit it as if Moore had never existed. Among the misinterpretations is to say, with William K. Frankena, that it is the "definist fallacy" and hence absurd. It is *not* a fallacy to define good; it is, *in case one defines it*, to define it falsely, namely by confusing logical orders. To deny that good is indefinable involves a *fallacy only because it involves contradictions*.[45] Frankena, in refuting the naturalistic fallacy, commits an *ignoratio elenchi*.[46]

This fallacy, according to Moore, not only obstructs the vision of "almost all" ethicists to the true nature of Ethics, it also deludes them "into accepting ethical principles which are false."[47] It makes their knowledge of Ethics not only obscure but also erroneous, which means that they regard as clear what is obscure, thus closing their minds against all further inquiry. Since their obscurity is based on a logical fallacy, their error is a *logical* one; they regard as true what is false.[48] Thus *false ethics* arise. When we are not so deluded we are at least not trapped into falsehood. "Good" is better not defined than defined falsely. If

> we once recognize that we must start out Ethics without a definition, we shall be more apt to look about us, before we adopt any ethical principle whatever; and the more we look about us, the less likely are we to adopt a false one. It may be replied to this: Yes, but we shall look about us just as much, before we settle on our definition, and are therefore just as likely to be right. But I will try to show that this is not the case. If we start with the conviction that a definition of good can be found, we start with the conviction that good can mean nothing else than some one property of things; and our only business will then be to discover what that property is. But if we recognize that, so far as the meaning of good goes anything whatever may be good, we start with a much more open mind.[49]

The indefinable nature of "good" serves Moore as a guard against error and a guarantee for a more distinct knowledge in Ethics.

The question then is, why did Moore think that his intuition that good is good was the end of the matter? The answer is that *his argument for the indefinability of good rests on a mistaken view of definition.* "The most important sense of 'definition,'" he tells us, "is that in which a definition states what are the parts which invariably compose a certain whole; and in this sense 'good' has no definition because it is simple and has no parts."[50] As an example of such a definition Moore cites that of "horse."

> We may, when we define Horse, mean that a certain object, which we all of us know, is composed in a certain manner: that it has four legs, a head, a heart, a liver, *etc.*, *etc.*, all of them arranged in definite relations to one another. It is in this sense that I deny good to be definable. I say that it is not composed of any parts.[51]

This is an analytic definition that enumerates the secondary properties of the thing defined. Such a definition can never be one on which a systematic science can be based. Such a science, for example, physics or chemistry, in its absolute distinction from sciences such as history or geography, is based on a synthetic definition. Only such a definition can be the basis of a synthetic system: axiomatic identification of formal with phenomenal elements in their schematic form of primary properties. Moore's confusion in this respect appears in his inclusion of physiology among such sciences as physics and chemistry. He probably added this science as an afterthought, to prepare the way for his example of the horse. Physiology, while it does deal with general structures—with *horse* rather than this or that horse—does *not* deal with structures of primary qualities according to a frame of reference that makes the possession of these qualities by the things in question necessary and hence predictable. That horses have "four legs, a head, a heart, a liver, *etc.*, *etc.*," are not synthetic *a priori* propositions, as are the propositions of physics, chemistry, and other exact sciences. Physiology is a purely empirical science. It is not even Casuistry in Moore's sense, for there is no *theoretical* part to it, as mathematics is to applied physics and chemistry, and as Ethics, the science of good, is to Casuistry. Thus, that good is *not* a notion like horse is irrelevant, for "good" as the "fundamental term" of the science of Ethics cannot possibly be an analytic term. It must be a synthetic term. Good, in other words, *is not unanalyzable because it has no parts but because it is not analytic.*

The notion of analytic definition is not the most important sense of "definition" to be applied to "good" if "good," as Moore insists, is the fundamental notion of the systematic science of Ethics. Rather, the most important sense of definition applicable to that notion is that of *synthetic definition*—that definition, namely, which originates a system of thought capable of serving as the theoretical part of an applied systematic science.

In the analytic-synthetic method, the given is resolved into absolutely simple notions out of which the subjects of inquiry are recomposed in the

schematic form of their primary properties, and "in an order different from that in which we should regard them when considered in their more real nature."[52]

An analytic definition is the beginning of this process, the very first step of breaking down the subject matter. In this very first step the analytic definition is the most important sense of "definition." In the science of good, the analytic method would consist in assembling data, such as uses and mentions of the word "good," sifting through them by the hundreds and thousands, and distilling from them the one element, unique and simple, that all these uses have in common, the absolute simple in the Cartesian sense, that bridges analysis and synthesis.

This analysis has three sources: everyday uses, philosophic mentions, and lexicological and etymological expositions (for example, the 135 uses mentioned in the *Oxford English Dictionary*, and the 528 quarto columns in *Grimms Worterbuch der Deutschen Sprache*). Moore employs only one of these sources, the second.[53] This "simple" is pregnant with meaning, and out of its components, if and when found, the new science would be built up. The distillation of this element must be preceded and accompanied by the conviction that there *is* such a common element, that good *is* good, and that it *can* be found. This is the intuition Moore expressed in *Principia Ethica*. It is the intuition that accompanies the analytic process of breaking down the moral data, and this analysis is what Moore performs in moral philosophy.

B. Propositions with "Good" are Self-evident.

Moore's use of the word "intuition" is largely the same as the rationalists' use: "Intuition" is a logical notion; it is not a psychological or even an epistemological one. An intuition is not a state of soul one suffers or an insight one proffers, but a proposition one offers. "I am not an 'Intuitionist,'" Moore said, "in the ordinary sense of the term,"[54] namely, in the sense of the nineteenth-century. But he may be called an intuitionist in terms of the seventeenth-century. He is concerned with the intuition that is the base of a new science. He discusses his intuitionism in connection with his endeavor "to write a 'Prolegomena to any future Ethics that can possibly pretend to be scientific.'" "In other words," he continues, "I have endeavored to discover what are the fundamental principles of ethical reasoning; and the establishment of these principles, rather than of any conclusions which may be attained by their use, may be regarded as my main object."[55] This means that he is not engaged in the synthesis that constitutes the new science nor, strictly speaking, in the analysis that leads up (or down) to it, *but in the fundamental insight that creates it.*

This intuition stands between the analysis and the synthesis of the subject. This notion divides Ethics as a philosophy from Ethics as a science. As end point of analysis it is a "simple" in the Cartesian sense; as starting point of the science it is a principle, a not-yet-articulated axiom. What Moore calls "conclusions" from the principle are merely corollaries of it. They do not follow from the

meaning of the principle but merely from its existence—from the fact *that* it is, not *what* it is. They are not connected with the content of the principle but with its being the principle, to wit, "that very many different things are good and evil in themselves, and that neither class of things possesses any other property which is both common to all its members and peculiar to them."[56]

Although this property, "good" (or "evil") is simple and unanalyzable, Moore from the very beginning tried to give it, and thereby the principle of scientific Ethics, some context. In *Principia Ethica*, he identified "*x* is good" with "*x* ought to exist for its own sake." What this means, though, can only be known by an intuition. "I have tried to show exactly what it is that we ask about a thing when we ask whether it ought to exist for its own sake, is good in itself or has intrinsic value."[57] For answers to this question

> no relevant evidence whatever can be adduced: from no other truth, except themselves alone, can it be inferred that they are either true or false. We can guard against error only by taking care, that, when we try to answer a question of this kind, we have before our minds that question only and not some other or *others*.[58]

Moore clearly regards answers to this kind of question in the same way that Descartes regards simple natures. Like Descartes, Moore emphasizes the complete concentration necessary for intuitive insight (as in the beginning of the *Third Meditation*: "I shall now close my eyes. I shall stop my ears, I shall avert my senses....").[59] Each thing must, so to speak, be taken as its own axiom, and this kind of proposition is what Moore calls intuition. "When I call such propositions 'Intuition,' I mean *merely* to assert that they are incapable of proof; I imply nothing whatever as to the manner or origin of our cognition of them."[60]

This means that Moore's "intuitions" are not psychological. They are not even epistemological. Their truth does not depend on the insight by which they become manifest. "Still less do I imply (as most intuitionists have done) that any proposition whatever is true, *because* we cognize it in a particular way or by the exercise of any particular faculty."[61] Self-evidence, as Moore is "anxious" to clarify,

> means properly that the proposition so called is evident or true, *by itself* alone; that it is not an inference from some proposition other than *itself*. By saying that a proposition is self-evident, we mean emphatically that its appearing so to us, is *not* the reason why it is true: for we mean that it has absolutely no reason.[62]

The reason that a self-evident proposition lacks is a *logical* reason—its being incapable of proof. Hence, an intuition is a logical matter. We may have psychological or epistemological reasons for holding it, or even axiological reasons for

why we *ought* to hold it that make it worthy of being thought, that is, "*axioma*." But all these reasons are not the logical reasons whose lack makes the proposition self-evident.[63]

Not only the truth but also the untruth of propositions may be self-evident. "In every way in which it is possible to cognize a true proposition, it is also possible to cognize a false one."[64] Thus, the untruth of the proposition "Pleasure alone is good" is self-evident. "There is no logical reason for [declaring it untrue]...because there is no proper evidence or reason of its falsehood except itself alone. It is untrue because it is untrue."[65]

Yet, there is something more to self-evidence than merely self-evidence. There is a *pattern* of self-evident propositions. With reference to the same proposition, the tenet of Intuitionistic Hedonism, Moore says: "I could do nothing to *prove* that it was untrue; I could only point out as clearly as possible what it means *and how it contradicts other propositions which appear to be equally true*."[66]

Thus, self-evident propositions may be self-evidently true or false, and hence self-evidently contradict each other. This means that at least one element of self-evidence is the relation of the proposition to other such propositions in the same context, that is, the position of the proposition in the pattern of self-evident propositions in question. The self-evidence of ethical propositions is at least in part due to the consistency of the pattern of these propositions, and this pattern is, precisely, the systematic science of Ethics. The self-evidence of the fundamental notion of good propagates itself, so to speak, to all the propositions forming the system.

A mere "notion," no matter how clearly held, cannot originate a system. It must be distinctly held in order to do so. It must be articulated into some one proposition that forms the axiom of the system.

C. All Ethical Propositions Must Rest for Their Evidence "Upon Some Proposition Which Must be Simply Accepted or Rejected"

All judgments, says Moore, that this or that is good (or bad) "*must rest in the end upon some proposition which must be simply accepted or rejected, which cannot be logically deduced from any other proposition*."[67] This means that all such judgments—Moore also calls them "ethical propositions"—are derived from some one proposition and thus are interrelated with respect to that one proposition. All such judgments form a *system*, and the proposition upon which the system rests in the end is the *axiom* of the system: that Proposition, namely, by virtue of which the system (a) *is* a system, (b) is the system of *Ethics*, and (c) all the propositions within it are *ethical.* Again Moore makes all this clear but without making it distinct. The axiomatic characteristics of the Proposition with its consequent system in Moore's work are these: (a) it is a proposition; (b) it cannot be logically deduced from any other proposition; hence, (c) it is self-

evident; (d) it must be simply accepted or rejected; (e) it is the fundamental principle of the system of Ethics; (f) all ethical propositions "must rest" on it "in the end" (which means that they must be derived from it); (g) all ethical propositions are contained in the system; and (h) they all receive their character of being *ethical* from the Proposition.

Let us now examine all these characteristics in Moore's text. For brevity's sake we will use his summary statement: "My discussion hitherto has fallen under two main heads. Under the first I tried to show what 'good'—the adjective 'good'—*means*."[68] The upshot of this discussion was that "good is good and nothing else whatever, and that naturalism was a fallacy."[69] But Moore has not shown *what* good means, only *that* it means. And it may mean "anything whatever."[70] To give it some one particular meaning involves the fallacy in question. Logically, this could be interpreted as meaning that good is a variable which confers its meaning—whatever it be—on anything to which it is significantly applied. The only meaning Moore gives to this variable is that its range is that of Ethics. Hence, any proposition "*x* is good" is an ethical proposition. This kind of "meaning" is not that of an adjective or a predicate; it is that of a notion that establishes a systematic science. It *is* the meaning of "the notion upon which all Ethics depends."

The variable "good," thus, determines (a) the field of Ethics as such and (b) the content of this field as ethical. Moore makes clear this double significance of "good." To know what good means, he says, "appeared to be the first point to be settled in any treatment of Ethics that should aim at being systematic. It is necessary we should know this, should know what good means...for two reasons."[71] The first is that "good" establishes the science of Ethics, the second that it determines its content as ethical.

> The first reason is that 'good' is the notion upon which all ethics depends. We cannot hope to understand what we mean, when we say that this is good or that is good, until we understand quite clearly, not only what 'this' or 'that' is (which the natural sciences and philosophy can tell us) but also what is meant by calling them good, a matter which is reserved for Ethics only. Unless we are quite clear on this point, our ethical reasoning will be always apt to be fallacious. We shall think that we are proving that a thing is 'good' when we are really only proving that it is something else; since unless we know what 'good' means, unless we know what is meant by that notion in itself, as distinct from what is meant by any other notion, we shall not be able to tell when we are dealing with it and when we are dealing with something else, which is perhaps like it, but yet not the same.[72]

Thus, the notion of good determines the field of Ethics. This is what Moore calls "the first steps in our ethical method."[73]

> A second step was taken when we began to consider proposed self-evident principles of Ethics. In this second division, resting on our result that good means good, we began the discussion of propositions asserting that such and such a thing or quality or concept was good. Of such a kind was the principle of Intuitionistic or Ethical Hedonism—the principle that 'Pleasure alone is good.' Following the method established by our first discussion, I claimed that the untruth of this proposition was self-evident.[74]

Its untruth is self-evident because it contradicts the evident truth of the fundamental notion, that good is good and *not* another thing. Thus, the second reason why we must know what "good" means is that every ethical proposition depends on it. This second reason is one of *method*: every proposition within the science depends on that notion.

> And the second reason why we should settle first of all this question 'What good means' is one of method. It is this, that we can never know on what *evidence* an ethical proposition rests, until we know the nature of the notion *which makes the proposition ethical.* We cannot tell what is possible, by way of proof, in favor of one judgment that 'This or that is good', or against another judgment that 'This or that is bad', until we have recognized what the nature of such proposition must always be.[75]

Thus, "good" is the point of origin of the science of Ethics and the point of reference of every ethical proposition. It is "the ground of all definition in Ethics"[76] as well as of the definition *of* "Ethics."

> There is a simple indefinable unanalyzable object of thought by reference to which [Ethics] must be defined. By what name we call this unique object is a matter of indifference so long as we clearly recognize what it is and that it does differ from other objects. The words which are commonly taken as the signs of ethical judgments *all do refer to it; and they are expressions of ethical judgments solely because they do so refer.*[77]

Part of Ethics—as Casuistry—is "to enumerate all true universal judgments asserting that such and such a thing was good, whenever it occurred,"[78] that is, to determine the range of the variable "good."

If "All ethical propositions must rest in the end upon some proposition which must be simply accepted or rejected," then "such propositions are all of them, in Kant's phrase, 'synthetic.'"[79]

D. All Ethical Propositions are Synthetic

The syntheticity of "good" is regarded by Moore, besides the naturalistic fallacy, as the most fundamental of his discoveries. "Propositions about the good are all

of them synthetic and never analytic; and that is plainly no trivial matter."[80] A proposition "about the good" is a proposition of whose subject it is said that "it is good." "The good" is the class of subjects, and "good" is the predicate of the propositions. Such propositions "must be *synthetic* propositions, declaring what things, and in what degree, possess a simple and unanalyzable property which may be called intrinsic value or goodness."[81] At the same time, such propositions rest upon some one proposition that answers the question not "What things are good?" but "What is goodness?" This fundamental proposition, we have seen, must be the axiom of the science of Ethics. But it cannot be itself "synthetic"; rather it is the Proposition by reference to which ethical propositions become synthetic. What then is the Proposition itself "in Kant's phrase?"

As the axiom of the science of Ethics, it is what Kant calls a *synthetic definition.* It *defines* "good."[82] Hence, "good" cannot be the predicate; it must be the subject or the *definiendum*, depending on how one interprets "is" in the expression "'Good' is..." Actually, Moore's "meaning of 'good'" is precisely this expression: "'Good' is"—and nothing else. "Good" is whatever it is. It is a variable and this expression, "'Good' is," is not synthetic or, for that matter, a proposition.

Are the derived universal propositions (those of the form "$(x)x$ is good," for example, "All pleasures are good") synthetic propositions? *If* they all rest on the Proposition that determines "good" and *if* this Proposition establishes the systematic science of Ethics, *then* all these propositions must be not only, in Kant's phrase, synthetic, but also synthetic *a priori*. They must be synthetic in the sense that "good" cannot be part of the content of any subject whatsoever—except one that is itself part of the system of Ethics (as against Casuistry).

The situation is the same with any predicate that makes a proposition synthetic *a priori*. "Triangular," for example, cannot be the subject of any proposition except one within the system of Geometry, one namely which determines triangularity; nor can it be part of the content of any subject except one that belongs to the system, for example, "cone." Whenever "triangular" appears in any other proposition, namely of *applied* geometry, that proposition is synthetic *a priori.* "Triangular," precisely because it belongs to the system of Geometry, cannot be part of the content of any subject that does not belong to that system. This can also be expressed by saying that "triangular" is a primary and not a secondary property. For the same reason "good" cannot be part of the content of any subject whatsoever except one that belongs to the system of Ethics, for example, "value," and it cannot be the subject of any proposition except one within the system, namely one which determines goodness. "Good," in other words, *is a primary property belonging to Ethics, and not a secondary property belonging to Casuistry.*

Whenever it is said that "This or that is triangular," the whole system of Geometry is involved; in general, in the application of any system, the whole system is involved.[83] The involvement of a whole system is what makes this kind

of proposition synthetic *a priori*. Their predicates are borrowed from the system and carry, so to speak, the whole system with them into the proposition, like a snail carries its house. In exactly the same sense, "good," in Moore's sense, carries the whole system of Ethics with it into any proposition of the form "This or that is good." Such propositions are applied ethical propositions, belonging to Casuistry, and for this very reason are all synthetic *a priori*.[84]

The fact that "good" when used as a predicate makes the proposition synthetic (and indeed synthetic *a priori*) leads to a further important consequence for the meaning of "good." It involves the distinction in kind between good and any property that can be the content of an analytic concept. But this immediately raises the question, what is the relation between good and such analytic properties? This question concerns the structure of a complex that includes good.

E. "Good" May be Subject to Formal Structurization

That there is a structure to goodness Moore already suggested by classifying "good" with number. Number obviously has a structure, and the analogy with number and reference to this structure pervades the whole latter part of *Principia Ethica*. "It is quite certain that two natural objects may exist; but it is equally certain that *two* itself does not exist and never can."[85] Here Moore alludes to what may be called the naturalistic fallacy in the field of mathematics—a fallacy which had to be eradicated in that field in a similar way which it had to be in Ethics in order to make it scientific.[86] The meaning of good and the meaning of number show a parallel structure. Number is number and not another thing; in particular, it is not anything that is numbered. To confuse the two, as had been done constantly, is a logical fallacy.

Another equally fundamental similarity exists between good and number. "Two and two *are* four. But that does not mean that either two or four exists. Yet, it certainly means *something*. Two *is* somehow although it does not exist."[87] But what is this "isness" of two? It is its being part of the system of Mathematics. Similarly, the "isness" of "good" is its being part of the system of Ethics. In both cases, this systematic or ideal "isness" has, "by metaphysicians," been confused with a kind of existence, not natural but supernatural. In this confusion Moore finds again fertile soil for the "naturalistic fallacy"—which in this aspect ought to be called the "super-naturalistic fallacy." Metaphysicians cannot content themselves with the idea that numbers are just numbers or good just good. "It is beyond their power to believe that what you do mean is merely what you say."[88] They hypostatize both, making them states of God's or somebody else's mind and thus are like the empiricists who cannot be content with this simple idea either, but make number and good dependent on the existence of things.[89]

Both kinds, the naturalistic and the supernaturalistic, are fallacies of confusing logical levels: either the predication of something with what it is predicated of, or the holding of something with what is held (as in the various

"states" mentioned by Moore). The naturalistic and the super-naturalistic fallacy are one and the same kind of logical fallacy, and this fallacy is applicable to both number and goodness. These are neither natural nor supernatural but non-natural entities. Actually, the fallacy is found in *any* field in the process of transition from philosophy to science. It is a fallacy the commission and the excision of which is inherent in the scientific method. Whenever a notion is to be structured as a system applicable to reality, the philosophical stage consists in confusing the notion with the reality. In Kantian terms, the fallacy consists in confusing synthetic, that is *constructed* "data," with analytic, that is *given* data, whether given *a posteriori* or *a priori.* The constructed and the given follow different orders, not only in the sense of Kant, but also in that of Descartes, and even that of Russell. Moore's fallacy, in the last analysis, is a fallacy of confusing logical orders.

Moore is correct when he says that errors in Ethics are like errors in Mathematics. "The only difference is that in Ethics, owing to the intricacy of its subject matter, it is far more difficult to persuade anyone either that he has made a mistake or that that mistake affects his result."[90]

Moore, then, is a rationalist in Ethics. No wonder that he did not remain content with the mere *clarity* of his intuition of "good" but proceeded, step by step, to *distinctness*. Already in *Principia Ethica* he gives a structurization of good that contains, in germ, the exact determination of it he gave twenty years later. This characterization, derived from the synthetic nature of good and the fact that it is *not* a secondary property, is *that an experience of good contains within it sets of secondary properties*.

We find this structure in Moore's discussion of the Ideal, as *summum bonum*, and related to the discussion of the super-naturalistic fallacy. In this fallacy the manifestation of something and that of which it is a manifestation are confused. These are two different things and may have two different values. Indeed, says Moore, the value of the manifestation bids us do what we ought to do, rather than the ought itself. "If...the moral maxim is to be justified it is the existence of this manifestation as distinguished from the existence of its corresponding [eternal] reality, which must be truly good."[91] Similarly, in his discussion of the *summum bonum*, Moore maintains the value of material existence. Idealistic philosophers

> have usually represented a purely spiritual state of existence as the Ideal. Regarding matter as essentially imperfect, if not positively evil, they have concluded that the total absence of all material properties is necessary to a state of perfection....But it does not follow, from this superiority, that a perfect state of things must be one, from which all material properties are rigidly excluded: on the contrary, if our conclusions are correct, it would seem to be the case that a state of things, in which they are included, must be vastly better than any conceivable state in which they were absent. In

> order to see that this is so, the chief thing necessary to be considered is *exactly what it is* which we declare to be good when we declare that appreciation of beauty in Art and Nature is so. That this appreciation *is* good, the philosophers in question do not for the most part deny. But, if we admit it, then we should remember Butler's maxim that: Everything is what it is, and not another thing. I have tried to show, and I think it is too evident to be disputed, that such appreciation is an organic unity, a complex whole; and that, in its most undoubted instances, part of what is included in this whole is *a cognition of material qualities*, and particularly of a vast variety of what are called *secondary* qualities. If, then, it is *this* whole, which we know to be good, and not another thing, then we know that material qualities, even though they be perfectly worthless in themselves, are yet essential constituents of what is far from worthless.[92]

Although "Good" is, as an intuition, a simple unanalyzable object, Moore says enough of it to make it not only *clear* but increasingly *distinct*: "Good" is the basis of the science of Ethics. As such it forms the unknown axiom of that science. It makes all ethical propositions synthetic, which means, since it is the element of a systematic science, synthetic *a priori*. It is not itself a secondary quality, but any complex experience with it is an organic unity that includes a vast variety of secondary qualities. These insights are sufficient for Moore to combine them, twenty years later, into a *formula* that determines goodness with precision.

F. The Formula for the Structurization of "Good" is Provided by Moore

In "The Conception of Intrinsic Value" Moore formulates the two structural elements he recognized in good in his "Prolegomena"—that all propositions with "good" are synthetic and that any experience of goodness contains sets of secondary properties—in the following striking (and to him paradoxical) manner: "Two different propositions are both true of *goodness* (1) that it does depend *only* on the intrinsic nature of what possesses it...and (2) that, *though* this is so, it is yet not itself an intrinsic property."[93] This formula, derived from an elucidation of the relation between a thing's intrinsic nature and its value quality, contains the two elements of the structure of goodness discerned in *Principia Ethica*, further differentiated. At the same time, this differentiation gives rise to puzzles, unsolved by Moore, that point to an ultimate sense of the formula that eluded him.

Moore's position gives rise to three particularly striking puzzles: (1) Both natural intrinsic and value properties are said to "depend" on the intrinsic nature of what possesses them. What is the difference between the two senses of "depend"? (2) Both propositions are said to be true of goodness, that it is *not* an intrinsic property and that it depends solely on the intrinsic properties of what

possesses them. How is this possible? (3) Natural intrinsic properties are said to *describe* the thing in question *to some extent* while value properties are said not to describe the thing *to any extent at all.* What is the particular sense of "describe" here used?

The first part of the formula, that good depends *only* on the intrinsic nature of what possesses it, determines the relation between "good" and the set of the secondary qualities in a more distinct manner than was attempted in *Principia Ethica*. By "intrinsic nature" is meant, precisely, the set of these qualities. Whereas in *Principia Ethica* Moore says that within a complex whole that is good the secondary qualities play an essential role,"though they be perfectly worthless in themselves, [they] are yet essential constituents of what is far from worthless," he now says, that *for goodness itself they play an essential role*, and he determines this role more precisely: goodness *depends*, and it depends *only*, on this set. What was left to find out in order to make the relation fully clear was *how* goodness thus depends. Moore never gave the solution to this question, but he came close enough to it for us to be able to supply this missing link.

The second part of the formula says that *though* goodness depends *only* on the set of secondary properties of what possesses it, it is yet not itself such a property. This part of the formula corresponds to the synthetic nature of "good." Any secondary predicate may be part of a thing that is good; thus a proposition with it *may* be analytic; but any proposition with good must *never* be analytic. Hence "good" cannot itself be a secondary property or an intrinsic property in the terminology of "The Conception of Intrinsic Value." This makes the nature of the dependence of good on the analytic properties with respect to which it is synthetic even more enigmatic.

How can a property not belong to a set of properties, hence make synthetic any proposition whose subject represents that set, and yet *depend only on* that set—which means for the proposition in this respect not to be synthetic? Obviously, the relation must be *between analytic and synthetic*—and this means it must be synthetic *a priori*.[94] A term that makes a proposition synthetic *a priori* does *not* depend on the subject's content but it does depend *only* on the system of which it is a part, which provides the necessary connection between subject and predicate. Now, if good, according to Moore's formula, is not a part of the set of the natural intrinsic properties of the thing and yet depends *only* on that set, then it must follow from my analysis that *this set itself must be the system of which good is a part*! And this system of natural intrinsic or secondary properties *must itself be, or be part of, the system of Ethics*.

This is the solution of Moore's paradox of goodness.

2. The Axiomatic of the Science of Value

Moore, in "The Conception of Intrinsic Value," gives another differentiation of the relationship between the natural and the value properties of a thing. This

relation, he shows, is an *a priori* one. Twenty years later, forty years after *Principia Ethica,* he says that it is a *logical relation.*[95] While the dependence of the pleasantness of a thing on the intrinsic natural properties is an empirical one, that of the goodness of the thing on these properties is a necessary one, indeed, it is the logical relation "follows from."

> 'Pleasant' is being so used that the proposition that experiences with those intrinsic properties are pleasant to me, or other or all men, is *merely an empirical proposition, not a necessary one*. Whereas the question: What makes this experience good? *is* equivalent to the question: From what intrinsic characteristics of this experience does it *follow* that it is good?, and the proposition that experiences with those intrinsic properties *are* good is *not an empirical but a necessary one.*[96]

I will now answer this question—what makes this experience good?— and in such a way that the puzzles Moore left unsolved will fall into place. In particular, I will show how my answer explains: (1) in which way both the natural and the non-natural intrinsic properties "depend" on the intrinsic nature of what possesses them, (2) in which way the "two different propositions" that are "both true of *goodness*" *are* both true of it, and (3) what particular sense of "description" is used by Moore. At the same time, my answer will show in what way the system of secondary properties is the system of which "good" is a part.

Moore's question is: "From what intrinsic characteristics of this experience does it *follow* that it is good?" My answer is: *From all of them*. A thing's goodness follows logically from the possession of all its intrinsic properties.

By intrinsic properties of a thing I understand those properties that correspond to the predicates contained in the thing's concept. Thus, I may re-phrase my answer and say that a thing is good if its properties correspond to the predicates of its concept. Or, a thing is good if it fulfills its concept. No matter how this answer be phrased, it is immediately clear what is meant. And it is evident that a thing that has *all* the properties named in its concept is a *good* such thing. A good horse is a thing called "horse" having all the horse properties; a thing called a lyre having all the properties of a lyre is a good lyre. It is also clear that this answer is nothing but the *logical* formulation of a principle common to all traditional value theory, whether expressed in ontological, teleological, epistemological, or any other terms.

Ontologically, a thing has been called good in the degree of its *perfection*; teleologically, in the degree of fulfilling its *purpose*; epistemologically, in the degree of possessing its essential *properties*. It is called good to the degree that its actuality corresponds to its ideality, or its ideality is fulfilled in its actuality (Paul Weiss) and to the degree that there is "fulfillment of its essential nature" (Paul Tillich). Moore himself at one time formulated this principle when he said that a thing is good when it has "the special complex of characters which justify

us in calling it good."[97] Surveying the history of axiology, we have here a general consensus, an *axiologia perennis*. It becomes *theologia perennis* when the notion of specific perfection is generalized into the perfection of an absolute being that lacks nothing and has the abundance of all properties.[98] Thus, Moore's tortured penetration into the mystery of goodness comes out, in the end, as the classic principle of it, formulated, for example, by Cicero, who wrote,

> It is not merely Justice and Injustice which are distinguished by nature, but also and without exception things which are honorable and dishonorable. For since an intelligence common to us all makes things known to us and formulates them in our minds, honorable actions are ascribed by us to virtue and dishonorable ones to vice; and to think this to be a matter of opinion rather than a rule of Nature is insane. For even what we, by a misuse of the term, call the virtue of a tree or a horse, is not based on opinion, but on Nature.[99]

In Moore, this principle appears in such a logical form as to make it capable of serving as the axiom of a science of value. In the course of history, especially in scholastic rationalistic philosophy, the term "Nature" took on precisely the logical meaning that corresponds to Moore's "intrinsic nature," namely "set of properties of a thing."[100]

This logical form solves the problems Moore left to us.

First, it shows the difference between the two senses of "depend," both of the natural intrinsic properties, and of the value property, on the intrinsic nature of the thing in question. The sense of "depend" of the natural intrinsic properties is *conceptual containment*: they are contained in the set of predicates that constitute the intension of the thing's concept. By this set the thing is thought of as one, and its properties are thought of as those of its intrinsic nature. The "depend" of the value predicate, by contrast, is the relation of *entailment*. The value predicate "good" is entailed by the total set of the intrinsic natural properties, that set which corresponds to the intensional set of predicates of the thing's concept. Goodness itself entails that the thing which possesses it has the total set of its natural intrinsic properties. Thus, the relation between the two kinds of properties is *equivalence*.[101]

Second, Moore's formula of the two different propositions, both true of goodness, that determine the relationship between the natural and the non-natural properties, has two aspects, a positive and a negative, both of which are determined with reference to description. The positive aspect is that any non-natural property depends solely on the intrinsic nature of the thing in question, that is, on the set of the descriptive properties of the thing. The negative aspect is that this non-natural property must contribute nothing at all toward the description of the intrinsic nature of the thing. "So strong are these requirements that one may reasonably doubt whether any properties which actually meet them are ever

to be found."[102] My axiom meets these requirements. It solves the paradox of the formula in the way any paradox is solved, namely, by distinguishing the two logical orders represented by the two aspects in question.

Moore's formula says that goodness does, at the same time, depend *only* on the descriptive properties of the object and *yet* not describe the object at all. This is obvious according to the vicious circle principle. If "good," in the sense of this principle, "involves"[103] the totality of descriptive properties, as it does, then "good" cannot possibly itself be a member of the set, that is, it cannot possibly describe. This means that "good" is on a higher logical level than any of these properties. This means that "good" cannot be, primarily, a predicate *of the subject* of a descriptive predicate; it must, at least, be a predicate *of the concept* of such subject. This means that when we understand that a thing "is good," it is not necessary that we know anything of the thing in question, but we must know something of the *concept* of which the thing is an *instance.*

Whenever the word "good" is used, a logical operation is performed. The properties contained in the *concept* of the thing in question are combined with the idea of the particular thing called good. Its having these properties makes it good. *A thing is good if it fulfills the intension of its concept.* Any value proposition with "good" as predicate means that the subject has *all* its conceptual predicates. The proposition is *synthetic*, for the property of having all the intrinsic properties is not, and never can be, itself one of these properties; and it is synthetic *a priori* if the definition of good serves as the axiom of the science of value, which Moore called the "science of Ethics."

The definition is appropriate for serving as this axiom for it is the articulation of Moore's clear but indistinct notion of good. It articulates this notion in terms of an *axiomatic identification:* it identifies the core of the phenomenal realm of value with the elements of a formal system, namely the notions of intension and class membership in logic. Thus, the system of logic becomes available for the structuring of the field of value. The definition is synthetic in Kant's sense: it gives rise to a system of axiology; all axiological propositions rest on it in the sense of being derived from it.[104]

Third, the puzzle of the sense of description in question is resolved in an unexpected way. Full sets of descriptive predicates correspond to the value *good,* while less than full such sets to the values *less than good* (fairness, average, badness, and so on). This means that subsets of the set of descriptive properties —including this set itself—are *values* of the thing. A value property then is *a subset of the set of descriptive properties*. Valuation, in other words, is the combinatorial play with properties. In valuation we leave out of account the normal set of secondary properties of the thing, that by which the thing is defined or generally known as a fact, and freely combine and recombine the elements of this set. Such combinations and recombinations of secondary properties *are values*. As *elements of* values the secondary properties of fact become the primary property *p*, and all the subsets of this set are values; so there are $2^p - 1$

values of the thing. This means that fact is the set, namely *p*, in terms of which the totality of subsets, that is values, is being ordered. Fact thus appears as the *ordering norm of value*. Moreover, since the set *p* may be seen as its own subset—it is part of the totality $2^p - 1$—*the value goodness is the set of intrinsic natural properties seen as a subset of itself.* In this sense it is true that goodness is a part of the system of secondary properties.

Moore's lifelong puzzlement about the relation between goodness and the set of natural intrinsic properties was well justified. His question about the sense in which natural intrinsic properties describe and non-natural such properties do not has this answer: *Natural properties describe as primary value properties.*[105]

The systematic science to be developed from these beginnings can be shown to have applications for ethical propositions as well as other value propositions. It is Casuistry in Moore's sense. It defines both intrinsic value and extrinsic value, as well as the fields in which they are used. Thus, Moore's intuition that there *is* a unique object, good, that is the fundamental term of a systematic science of Ethics does appear to be justified. Good is, as he suggested, the fundamental notion of a formal science. The axiomatic identification mentioned structures both this notion and the science. In it, "good" appears as a logical or a syncategorematic term. Thus, as expressed recently, "Moore's intuition was an intuition of the syncategorematicity of the meaning of 'good.'"[106]

Principia Ethica, then, appears as a treatise on the unknown axiomatic character of "good." It is, to some degree unconsciously, an exercise in the analytic-synthetic method of creating a new science. It may well be said, therefore, that its "end of the matter" is at the same time the beginning of the matter. It is an analytic end but a synthetic beginning, a categorial end but an axiomatic beginning, a philosophical end but a scientific beginning.

Good is indefinable analytically, but not synthetically; it cannot be defined as a concept but it *can* be defined as a construct. It is not a philosophical category but it may well be a scientific axiom. It is the end of Ethics as philosophy, which Moore convincingly showed to be based on a logical fallacy, and the beginning of Ethics as a science, to which he wrote the "Prolegomena." Ethics, and value theory in general may indeed, in their structure, become exact sciences like physics and chemistry. And *Principia Ethica*, while not *Principia* in the sense of Newton, may yet be *principia,* in the sense of being a new beginning in moral philosophy, as was Newton's *Principia* in natural philosophy. They may yet play their part in making true Newton's prediction, in his discussion of the analytic-synthetic method: "And if natural Philosophy in all its Parts, by pursuing this Method, shall at length be perfected, the Bounds of Moral Philosophy will also be enlarged."[107]

Envisaging a moral science is no idle dream. In doing so, we must be clear about the levels of language in which value phenomena can be discussed. These levels, as already said, provide the axiological fallacies. We now see that they

also provide the solution of Moore's paradox of Goodness. The following pages will show that they are the ordering matrix for moral philosophies.

The next two parts will present a classification and critique of value theories, first extensively, then intensively. In Part Two, the relation between value and reason(s) will be examined in a reasonably complete survey of contemporary value theories. In Part Three, the same relation will be studied in depth: formal value theory will be applied to the goodness of reasons given for valuation, in a sample of value theories.

Part Two

REASON AND REASONS OF VALUE

Comprendre c'est avant tout unifier. Albert Camus

Five

NON-COGNITIVISTS AND SEMI-COGNITIVISTS

They know a vast amount of detail and have discovered many new facts; but nothing more. They have simply supplied the material for the thought and work of others. These men are satisfied with their details, and yet to me they are like the rich farmer in the Gospel;—they have collected a large amount in a coffer, but science can say to them, since it is science which decides the importance of each detail within the whole, 'To-morrow I will ask for your soul.'[1] Søren Kierkegaard

1. Non-Cognitivists

A. Non-Cognitivist Empiricists.

Thirty years after the appearance of *Principia Ethica* a young English philosopher, Alfred J. Ayer, returned from a six-months' visit to Vienna and formulated the positivistic credo, including its "critique of ethics and theology," for the English speaking world in a form that was as radical, not to say exaggerated, as it was effective. To positivists such as Ludwig Wittgenstein, the intellectual clarification of ethics was the ultimate challenge. "Now at last the connection of ethics with the world has to be made clear."[2] As for G. E. Moore—though for different reasons—so for Wittgenstein, value was a matter of pure intuition—*autzeigbar* but not *aussprechbar*; thus the status of ethics was similar to that of logic. "Ethics does not treat of the world. Ethics must be a condition of the world, like logic."[3] Like Moore, Wittgenstein tried again and again to articulate the ineffable, and before he gave up "the terrible business" (and transposed the problem into a realm different from that of thought) he had at least learned "to stammer" when he talked about it.

A. J. Ayer used his brilliant mind not to develop stammer into speech but to silence the whole enterprise. Ethics, by his definition, could not be intellectually understood at all—for some reason which must be accounted for by social science in the sense of E. A. Gellner or some other. Gellner thought that the social role of Oxford philosophy was "to rationalize the loss of English power." According to Ved Mehta, "About the turn of the century, Oxford was a nursery for ruining an empire; now it is a nursery for leaving the world exactly as it is."[4]

Ayer's value judgment on value found such an echo in England that the thirty pages of Chapter Six of *Language, Truth and Logic* made philosophical—or unphilosophical—history. He excised value theory from philosophy. Value judgments belong in the same class as sobs, sweat, and tears; they "are pure expressions of feeling"[5] and a matter for psychologists rather than philoso-

phers. "In fact, we may define the meaning of the various ethical words in terms both of the different feelings they are ordinarily taken to express, and also the different responses which they are calculated to provoke."[6] They are emotive expressions, subject to psychological observation and classification, but they are subjects of logic as little as, say, jerks. "The further task of describing the different feelings that the different ethical terms are used to express, and the different reactions that they customarily provoke, is a task for the psychologist."[7] The language of goodness was thus denied the nature of speech, that is, of communication by means of "words for things, implying conceptual thought,"[8] and was demoted to emotive language—"ejaculations," "vocalizations"—the kind of psychosomatic noises made by animals, and for the same purpose animals make them, in order "to express feeling and provoke reactions."

During the same period in which the language of ethics was excised from human speech and inserted in the field of emotive language, research in this language, especially that of animals, disclosed an astonishing articulation and differentiation of emotive expressions. The literature on the languages of dolphins, bees, and baboons shows that these animals have languages expressing their emotive needs to a functional perfection that human emotive language lacks; human emotive language is a vestige of animal language, and in the human situation a quite useless one. This vestige is regarded by the philosopher under discussion as the matrix of value judgments. Thus, "the age-long end endeavor to find an intellectual basis for ethics," in the sense of Wittgenstein, is denied; two-thousand years after Plato and Aristotle (for whom, as forWittgenstein in the phase under consideration, the understanding of goodness was the culminating task of human rationality), this task is now relegated to the field of animal psychology. The expression of goodness, once regarded as the mark of true humanity, is for the radical positivist a vestige of our animal nature. Diogenes at least was looking for a human being, by which he meant a person "truly good" in the sense of being "true to himself."[9] The radical positivist does not look for anything of the kind for he knows nothing of the kind; a human being expressing value is for him no different from a dog doing the same when he annoyingly barks or affectionately gasps. The only difference is that the dog's emotive expression doesn't look like a sentence while a man's does.

Value judgments, for Ayer, have no logical status. They are literal nonsense and are not propositions, either empirical or analytic. The task of the ethical theorist is to expose the purely emotive, pseudo-sentential nature of "normative judgments." Such judgments Ayer regarded as characteristic of ethical discourse; since the logic he uses has no room for normativity he concluded that there was *no* logic that did. Although logical positivism had the great virtue of insisting on the distinction of the factual from the value aspect of a judgment— thus avoiding the metaphysical fallacy—and on the corresponding precision of language, it had the fatal weakness of taking as the model of rational truth only one, the empirical, rather than the rational element of natural science. It tied

down its so-called logic to definite empirical reference—denying the formal nature of logic and, like Hume, overlooking the possibility of a rational account of the "emotions," that is, granted that they do indicate value, of a rational account of value. Positivism thus committed the fallacy of method. Since neither the normative nor the emotive truly define value, it committed both the normative and the naturalistic fallacy. The avoidance of one fallacy thus was accompanied by the powerful commission of three others. Logic itself was confined to one narrow pattern, so the logical positivists were neither really logical nor really positivist; they were illogical and negativist. If they had recognized the possibility of opening up logic to value, they would have released powerful forces, expanded scientific procedure into value theory, and supplemented logical positivism by *axiological positivism*.[10]

Positivistic value nihilism is one aspect of the fact that this position is what I called the zero point of the scale of axiological cognition. The other aspect is that it is the starting point of the scale. The entire development of positivism since 1936 has been in the direction of making value judgments more and more comprehensible without, however, making them rational. The development is from non-cognitivism to semi-cognitivism. After Ayer, positivists have in various ways attempted to analyze value expressions, for example, "Lying is wrong," as imperatives ("Don't lie!"), optatives ("I wish you wouldn't lie"), exclamations ("Lying!!!"), persuasions ("I disapprove of lying—you should disapprove as well!"), commendations ("I wouldn't lie if I were you"), performatories (Lying as function in a situation), and the like. The distinction between the descriptive and the non-descriptive part of a value judgment (for example, "You are not telling the truth—phooey!") has been strictly maintained, and the relation between the two parts ("You are not telling the truth" and "Phooey!") has been investigated as the central problem of value theory—as it had been, in different ways, since Kant. This is the reason that there has been no strictly non-cognitivist work in the second post-Moorean period denying proposition (1), that there is value. Ayer's is still the classic in the field; even he himself has in the meantime moved very close to the semi-cognitivist position.[11] There have been minor but significant examinations of the non-cognitivist theory, weighing its pro and con, such as T. Harrison's[12] who, continuing a discussion begun by W. H. F. Barnes[13] and C. A. Campbell,[14] concludes that in spite of essential inadequacies the theory, especially in its emotive variety, does account for some of the fundamental aspects of the ethical life and that, on the whole, ethics can do without propositions.

B. Non-Cognitivist Formalists.

A significant work of formalist non-cognitivism was written by Everett W. Hall.[15] Though it affirms proposition (1), that there is value, it denies with qualifications proposition (2), that it can be known. Value is not a knowable

phenomenon, but its structure shines through the structure of the judgments made about it. Understanding these judgments, we may get an inkling of the essence of value itself. The answer to "What is value?" cannot be formulated in any correct language; it must be experienced. Hall's value experience, informed by his insight into the structure of normative sentences, leads him to the result that value is "the oughting-to-exemplify," the "It-were-good-to-exemplify that obtains between a particular or particulars and a quality or relation (analogously to fact, which is the actual exemplification of a quality or relation by a particular or by particulars)." Value is simple, irreducible to fact, not a quality but relational, in the vague sense that exemplification is relational. What it relates is always some particular or particulars and some quality or empirical relation. Only particulars have value. But they have it only with respect to some quality or relations." As will be seen, this is an analytic and somewhat tortured statement of the axiom of formal axiology.

With his indirect method of catching glimpses of the value realm Hall is close to the semi-(non)-cognitivist: his emphasis on normativity puts him in the proximity of the semi-cognitivist empiricist, the emotivists, while his analytic method puts him close to the semi-cognitivist formalists, their analysis of "ought" sentences, and their Wittgensteinian renunciation of systematic knowledge.

2. Semi-(Non)-Cognitivists

A. Semi-Cognitivist Empiricists

The difference between the semi-(non)-cognitivist empiricists and formalists is that the first discuss the relationship between description and valuation by emphasizing a distinction between value and non-value *properties*, whereas the second discuss it by emphasizing a distinction between value and non-value *predicates*. The first discuss aspects of situations, the second aspects of propositions. Yet, both points of view are closely related, as we see in the Swedish school, which we may call that of the "three Hs": Axel Hägerström, Ingemar Hedenius, and Sören Halldén. According to Hägerström,[16] normative sentences, such as "You ought to stop smoking," do not express propositions; but propositions may be involved in their meaning. For example, some semantic relationship may exist between that sentence and the following proposition about the future: "You will stop smoking." Also, the sentence may stand in some semantic relationship to a psychological proposition such as, "I hope that you will stop smoking."

The exact nature of such relations is dealt with, on the basis of Axel Hägerström's theory, by Ingemar Hedenius[17] who makes use of two technical distinctions between (1) definite descriptions and propositions and (2) sentences and their context. The value sentence, "You ought to keep your promise," is analyzed

as a definite description, "Your keeping of your promise," rather than as the proposition, "You will keep your promise." The second, Hedenius believes, is not directly involved in the meaning of the sentence. Rather, this meaning is what the description describes, a certain disposition that may be part of the moral character of the person addressed, her or his disposition to keep promises. Secondly, the sentence differs from what Hedenius calls the "circumstances of publication" of the sentence. One and the same sentence may be written down or pronounced in different contexts: in a play, a scientific textbook, a song, a prayer book. These "circumstances of publication," he holds, are often of semantical relevance. They should be considered when the meaning of the sentence is investigated. When we suspect that a proposition is part of the meaning of a given sentence, we have to ask ourselves whether it is asserted by the sentence in question or merely *suggested* by some of the circumstances of publication. The semantic relationship between the proposition: "I hope that you will stop smoking," and the value sentence "You should stop smoking," is not a direct one. The connection is mediated by some of the circumstances of publication: by the way it is uttered, by the context in which it is written down, and so on. The proposition in question is therefore not *asserted* by the sentence in question, though it may be *suggested* by some of its circumstances of publication. In his emphasis on the contextual and circumstantial aspect of "publication," Hedenius approaches the position of the semi-cognitivist formalists, especially the Oxford school. As do they from the point of view of systematic axiological knowledge in the strict synthetic sense, Hedenius seems to explain *ignotum per ignotius*. For "disposition," "circumstances of publication," "context," "suggestions," and so on are as undefined, and indeed even more undefined, than the terms they are supposed to explain. Hedenius and those who hold similar theories say little in detail about the peculiar relations their theories imply. This should be enough, using their own standards in judging other theories, to disqualify their own.

One reason why Hedenus holds the theory he does is his belief that Moore's objectivistic theory has been "reduced to absurdity" by Moore's failure to define "the peculiar and indeed very curious relation between the quality of intrinsic value and the intrinsically valuable object."[18] Actually, Moore said far more in detail about this relation than Hedenius said about the relations implicit in his theory. Hedenius jumps to the conclusion that because Moore failed, the impossibility of defining this relation is "proved." Since formal axiology not only defines this relation but gives this definition both systematic and empirical import, Hedenius's theory—as well as the theories of others holding them for, among other reasons, Moore's failure of explication—are in turn, in this respect, reduced to absurdity.

Sören Halldén,[19] too, takes his point of departure from Hägerström, but in a critical direction, using certain ideas earlier proposed by Einar Tegen.[20] He assumes, contrary to Hägerström, that the meanings of ordinary value sentences

have a propositional structure. He investigates this structure by means of "emotive properties," derived by abstraction from emotional contents that are localized in objects of perception. A well-known psychological fact is that the contents of our emotions are sometimes localized in perceived objects. For example, a girl who is seen may be suffused with loveliness, or a slowly moving octopus with a quality of horridness. Perceptual contents of the emotional kind are perhaps a little peculiar, but it seems quite clear that *concepts* can be abstracted from them just as from perceptual contents of the ordinary kind. In this manner concepts like "lovely" and "horrible" can be formed. These, then, are value concepts of a primitive character. They are not a special kind of psychological concept. The proposition "*x* is lovely" does not say, "Someone perceives that *x* is lovely"; nor does it say, "I perceive that *x* is lovely." Value properties like good, bad, right, just, beautiful are not themselves emotive properties. The proposition "*x* is good" rather *refers* in a certain way to the non-valuational attributes of *x*. It says that *x* is *made* valuable by the attributes in question. A modal relation is involved in the proposition, a relation of moral necessitation, which in certain respects is similar to the relation between cause and effect. Ordinary concepts of value are logically more complex than emotive properties; but emotive properties are logically involved in them. Thus, "*x* is good" implies "Some positive emotive property applies to *x*."

Here again is the analytic procedure of explaining *ignotum per ignotius*. Not only is the relation between "good" and the corresponding emotive property left in the dark, but that property itself is so complex as to be in need of precision. In formal axiology, Halldén's emotive properties are value properties, and they are all definite specifications of the axiological property "good." "Good" is defined by reference not to complex emotive properties, but to the set of the object's descriptive properties. Thus, "lovely" is a value property because certain descriptive properties of the girl—her skin, her eyes, the curvature of her neck, her smile, and so on—produce *in toto* the impression of loveliness. "Loveliness," in turn, is formally defined as a special kind of aesthetic value, and aesthetic value is intrinsic goodness applied to things.[21]

Actually, "lovely" is a mixture of moral and aesthetic goodness. A girl whose intrinsic value as a person manifests itself in aesthetic features—grace, poise, charm, beauty—is lovely (and loveable). What Halldén dispatches as "primitive" value properties are so complex as to need a formal system of utmost precision for their explication. Yet, his emphasis on the relation between value property and non-value property stresses a subject central to value theory. It is also focal in the discussion of another sophisticated emotivist, Paul Edwards, who emphasizes what Halldén neglects, the complexity of "primitive" value properties.

For Paul Edwards value words such as amusing, boring, hopeful, lazy, and so on, are what he calls "polyguous expressions," terms that have a large number of different referents.[22] "Referents" are intensional rather than extensional

entities, namely, sets of "value-making" properties that in every use of the value word may be different—an observation reminiscent of Aristotle's discussion of the homonymity of the word "good,"[23]—another analytic statement of what we may call the fundamental relation of axiology. Unlike Aristotle, Edwards develops this relation up to a point, logically, beyond that point, emotively. Value qualities are not qualities like redness or hardness. To assume that they are is

> a false assumption based on the superstition that to every adjective there corresponds *one* property." Boringness "is not a 'one'; it is a 'many.' The bor-ingness is constituted by several features and by different features on different occasions.[24]

Edwards contends that value properties are not simple but complex qualities. Rather than develop this complexity logically and define in systematic detail the nature of this "polyguity" and thus the relation between the value property and the "value-making" properties, Edwards contents himself with *stating* the relation and drawing general conclusions from its existence. Taking "The steak at Barney's is rather nice" as a representative value expression, he affirms,

> (i) the niceness [value] is "located" in the steak [the valued object], not in me [the valuating agent] or my feelings;
> (ii) the niceness [value] is *not* identical with any one, or any one set, of nice-making [value-making] characteristics;
> (iii) although niceness [value] is objective, there is no feature or set of features to which we can point and say, "This is niceness" ["This is goodness"];
> (iv) nevertheless niceness [value] is not distinct from, or over and above, these features—it *disjunctively* refers to an indefinite set of them.[25]

So far we have found the phenomenological insight that leads to formal axiology. But Edwards veers off on the emotive tangent by failing to *develop logically* the nature of value *judgments* from his correctly discerned nature of value *concepts*. He is seduced by the empirical meaning of "polyguous" and fails to develop this meaning formally.

According to Edwards, what is true of value terms is also true of value judgments; they, too, are "polyguous" in the sense that people, when talking in value terms—"ought," "good," and so on—about the same subject, do not always mean the same value-making features. From this it might seem that moral disputes are largely pseudo-disputes, but this to Edwards would be an "incredible consequence." Rather—and here he leaves logical analysis and enters the emotive realm—many such disputes are symptoms of disagreements in attitude.[26] Edwards thus bases his emotive theory on the notion of polyguity; or rather, since there is no logical connection between verbal and emotive disagreement,

he brings in the emotive aspect of value judgments where the logical seems to end in paradox. An exact logical determination of polyguity would explain the "incredible consequence" simply as the result of the logically variable nature of the value quailty.[27]

In addition to serving as the basis for the emotive solution, polyguity serves Edwards also as the basis for naturalism. From the fact of the polyguity of value terms it follows that

> (1) "most moral judgments are objective claims," that is, they refer to something other than events in the speaker's mind, but they do not refer to non-natural qualities or relations; further,
> (2) certain moral judgments "*resemble* commands and requests in certain respects; yet, they *are not* commands and requests—they are *sui generis* and also differ from commands and requests in various significant ways...."
> (3) many moral disputes are, within certain limits, capable of settlement in the same sense or a sense analogous to that in which scientific disputes can he settled; and
> (4) many moral judgments "follow from" non-moral judgments....[28]

Edwards's position is a fusion of naturalism and emotivism based on the "polyguous" meaning of value terms. "Polyguity" is understood analytically and not synthetically, materially and not formally. Therefore, the theory lacks the precision a logical penetration into the meaning of this term could have given it.

Unfortunately, none of the attacks against the emotive theory dwell on this fundamental point. The critics are as uncritical as the criticized. Avrum Stroll,[29] for example, expounds the emotive theory in critical detail and refutes it by showing that it does not live up to its own claims. It claims, first, to be a fundamentally new theory in the history of philosophy and, second, to analyze correctly ethical language in its ordinary use. Both claims, according to Stroll, are unjustified. Of the two versions of the theory, the more radical of A. J. Ayer and others (whom I call non-cognitive) may possibly satisfy the first claim. It may well be a new theory in the history of philosophy, although, as Stroll shows, even this is open to doubt. But the theory is clearly inadequate with respect to the second claim, since it does not correctly analyze ordinary language. The more moderate version of Charles L. Stevenson (which I call semi-cognitive) comes closer to analyzing ethical discourse as it is ordinarily employed and thus to satisfying the second claim, but it is not new. It is a linguistically disguised version of a form of traditional naturalism, and thus it fails to fulfill the first claim. Curiously enough, Stroll finds Stevenson's method not empirical enough. His own position may be called empirically Wittgensteinian. He would, like Arene Naess,[30] use the questionnaire and interview method to find out how people actually use ethical terminology. This would abolish conceptual analysis in the fashion of Ayer, Moore, and W. D. Ross. Naess develops certain "operational" methods for interpreting and analyzing the way in which words of philosophical interest are used

which state synonymity, relations actually holding between expressions. Descriptive definitions are valid only for persons or populations at a certain time and space and must be put forward only as hypotheses to be tested by empirical methods, such as questionnaires.

But no *theory* can be created from samples of a phenomena. Sampling is only one step in the process and, usually, to judge from the procedure of science, it is a step whose significance is in inverse proportion to the explicitness of the system or hypothesis it is to verify. Since Stroll neglects and indeed disdains this *systematic* aspect of value theory, his critique of the emotive theory does not really hit the core of this theory—its *methodological inconsistencies*. These have been exposed with even greater acuteness by V. Tomas[31] and with much greater moral sensitivity by Brand Blanshard.

Stroll's criticism of the emotive theory is, so to speak, from below, the bargain basement of people's opinions, while Blanshard's is from above, the management story. Blanshard attacks the subjectivism of the emotive theory. Feelings of approval or disapproval are irrelevant to the goodness or badness of a situation. The theory does not account for the reality of moral life, and it has immoral consequences; it cuts the ground from under any distinction between right and wrong. "If I have murdered a man and wish to remove the stain, the way is clear. It is to cry: 'Hurrah for murder!'"[32] While Blanshard's analysis is true for the radical emotivist theory, it does not seem to apply to the moderate view, especially the one represented by Paul Edwards, for in this view value terms, in addition to their subjectively expressive meaning, have objectively referential meanings, that is, they refer to the descriptive properties of a situation and receive their axiological meaning—goodness, badness—entirely through these "value-making" features. But even this moderate theory does not dispose of Blanshard's argument that objectively bad-making features may be called good, as in the statement of a sadist who enjoys suffering. Since the emotive theory has no criterion for the relation between the referential and expressive meaning of value words and, in particular, no definition of what makes good-making and bad-making properties good-making and bad-making, respectively—which in Edwards' case would presuppose axiological analysis rather than mere assertion of the "polyguity" of the value words—the theory cannot determine why the sadist's enjoyment of bad-making features should be bad. The emotive theory lacks both systematic and empirical import. This methodological feature is what the criticism of any ethical theory ought to emphasize. As long as it does not do so, pleas for more cognitive rather than emotive analyses of value judgments, whether Blanshard's or another's,[33] will be ineffective because they remain on the analytically ethical level and do not rise to the systematically meta-ethical level.

B. Semi-Cognitivist Formalists

The semi-(non)-cognitivist formalist school has made a most significant contribution to value theory in the second post-Moorean period. It is geographically centered in England, especially Oxford, with branches in the Midwest of the United States. The difference between the two schools lies in their method of analysis. While both agree that value judgments can be rationally analyzed not only in their descriptive but also their valuational aspect, and both are concerned with the relation between these two aspects, the Oxford School approaches the problem atomically, by a detailed analysis of the use of ordinary language in value discourse, while the Midwest School approaches it molecularly, by examining the total relation between the two aspects as a whole.

i. The Oxford School

This school is often said to be the axiological extension of the later teachings of Ludwig Wittgenstein (just as Everett W. Hall's value theory may, to some extent, be called its axio-ontological extension). The school is said to extend to value philosophy the method the later Wittgenstein applied to philosophy in general. To some degree this is true, and to this degree it must be said that the school both misunderstands and misuses Wittgenstein. It misunderstands him because the philosophy of the later Wittgenstein is an organic part of his total philosophy, and it cannot be understood without the earlier. If the relationship between the two aspects of his doctrine is disregarded, neither the one nor the other can be said to be understood. And if the later Wittgenstein is used as a procedure in value philosophy without regard to the earlier, then it is not Wittgenstein whose philosophy is applied, but a fragment of his teaching, the use of which by itself is meaningless. His philosophy is then misused. It is misused also in another more fundamental sense. No one who follows Wittgenstein can legitimately follow his later approach without having followed the earlier.

For the earlier Wittgenstein, ethics has the same methodological position as, and a structure similar to, logic; it is a "condition of the world like logic." And the relation between logic and the world, as shown in the *Tractatus,* would have to be complemented, he thought at the time, by a similar treatment of the relation between ethics and the world. The later Wittgenstein replaced the logical structure of the world that he presented earlier by a structureless realm of language games, which neither accounts philosophically for the world nor shows the incapacity of philosophy to do so. After having made a supreme effort at a systematic understanding of the world, Wittgenstein turned his back on his own creation and attempted to find understanding in the "language games" in which people bandy around words as soccer players move the ball on the field. There is no reason why Wittgenstein should not have turned to this diversion, and there is no doubt a profound reason why he did. He certainly could afford, intellectually, to do so, and to force his fellow philosophers to inquire into the reason why he did. Philosophers who have never made the supreme effort of the

Tractatus and therefore have never experienced the triumph and despair over it, have neither a reason nor the intellectual grounding to start where Wittgenstein ended. To say it pointedly, no philosopher who has not written a *tractatus logico-ethicus* can intellectually afford to write *ethical investigations*. Without the first, the second is hodgepodge; but with the first, it is a significant development. Unfortunately, some admirers of the early Wittgenstein have as little understood this as have the admirers of the later. The first at least have the advantage that they do see the illegitimacy of following the later Wittgenstein without considering the earlier—even though they themselves may be unable to follow the earlier into the later. As Bertrand Russell expressed the core of the matter,

> I admired Wittgenstein's *Tractatus* but not his later work, which seemed to me to involve an abnegation of his own best talent very similar to those of Pascal and Tolstoy. His followers, *without (so far as I can discover) undergoing the mental torments* which make him and Pascal and Tolstoy pardonable in spite of their treachery to their own greatness, have produced a number of works which, I am told, have merits.[34]

Russell, "in spite of serious efforts" is unable to find them meritorious. Rather, he calls them the "Philosophy-Without-Tears School."[35] The very opposite of this name would apply to Wittgenstein's doing philosophy, both early and late. Russell should have asked himself more seriously than he did why Wittgenstein, with the intensity of thought of which only he was capable, should have produced a doctrine that "makes philosophy very much easier than it has ever been before,"[36] and why one of the deepest thinkers of all times should "have grown tired of serious thinking and... have invented a doctrine which would make such an activity unnecessary."[37] Yet, having admired and to some extent followed the earlier Wittgenstein, but not the later, Russell was under no intellectual obligation to understand the later.

This obligation is incumbent upon those who follow the later Wittgenstein, and without discharging it their writings cannot be taken seriously. At long last it seems to dawn on the philosophers of the Oxford School that there is more to the method they employ than what they have so far acknowledged; and they turn to systematization, having made the "discovery" that certain conditions underlie language from which wider truths can be deduced than from the study of language itself. Thus, Oxford philosophy, although a significant facet of value theory in the second post-Moorean period, is already on the wane. Whether Oxford philosophers will be able to rise to the discipline of traditional philosophical systematization, let alone of the *Tractatus,* or whether the "lazy consequences"[38] of the habit of philosophizing in the style of the later Wittgenstein will forever dog their effort, remains to be seen. Russell's "overpowering strong bias" against the later Wittgenstein may give an idea how Plato felt about his star pupil. Aristotle, too, forsook pure logic (in Plato's sense) for the talk of the street (*katagoreuein*—to gossip in the market place) and "reinstates the credit of the common man; he it is who possesses the substance of truth and gives

it habitual expression by speech, even roughly indicating the various kinds of existence by different forms of words."[39]

In my view—and this has nothing to do with the core question posed by Wittgenstein's philosophy, namely, the relation between the earlier and the later Wittgenstein—the later Wittgensteinian procedure is concerned only with philosophy, not with science. It thus has no application to an axiology regarded as the science of value whose propositions are synthetic *a priori*. For Wittgenstein, the philosopher is the therapist of the disease of systematization, but of analytic philosophical, not of synthetic scientific systematization.[40] Supposing that philosophical systematization is a linguistic disease—and formal axiology is not too far from this position itself—Wittgenstein's prescription is, "Back to ordinary locution!" while that of formal axiology is "Forward to scientific precision!"

In the Kantian hierarchy of conceptualization, Wittgenstein bids the philosopher, who is on the level of analytic definition, to slide back to primitive description and *aporetic*, while I ask him to leap forward to synthetic definition and *axiomatic*. All the philosopher should do, according to Wittgenstein, is to keep tabs on how the word or phrase he is concerned with is used in various language games in which it occurs. Philosophers thus become players with word uses. Instead of guiding human beings in their perplexity, their Socratic-Platonic mission, philosophers become scorekeepers of perplexity.

While the positive task of philosophers, according to this school, is keeping tab on language games, their negative task is to show the futility and fundamentally mistaken nature of any search for definitions. Definitions, says Stuart Hampshire,[41] have been the "will-o'-the-wisp" of value theory. The pursuit of them has rested on the assumption that a single formula, such as the greatest happiness principle, could be found from which it is possible to deduce judgments about what is good and what is right. Instead of offering definitions, moral philosophers should devote themselves to giving "specimens" of reasons that would be accepted as pertinent in moral situations, and

> describing specimens of conduct to which they are applied....An informative treatise on ethics—or on the ethics of a particular society or person—would contain an accumulation of examples selected to illustrate the kinds of decisions which are said to be right in various circumstances, and the reasons given and the arguments used in concluding that they are right.[42]

Reason, as Everett W. Hall[43] points out in the tradition of moral philosophy as the guide of human conduct, is by this school split up into a multitude of situational reasons. Instead of Practical Reason, an infinite variety of practical reasons exist, each with its own peculiar normativity. "The distinguishing characteristic of practical judgments," says Stuart Hampshire[44] "is that they have a prescriptive or quasi-imperative force as part of their meaning." What is prescribed is not an attitude—the characteristic of the emotive theory—but "a course of action, or a way of life." For,

if we examine the uses of ethical judgments, we see that they all center about the problems of moral agents who are trying to decide what to do in a situation in which they have to make a choice and then act upon it. "The typical moral problem is not a spectator's problem or a problem of classifying or describing conduct, but a problem of Practical choice and decision." That this *moral* problem is not the *ethical* problem, this school is unable to see. The Reason by which the *ethicist accounts for* moral reason is different from the reasons by which the *moral agent* decides in his or her situation. We have here the confusion of method and content so often encountered, the fallacy of method.[45]

This "retail" theory of moral judgments, then, sees the moral character of a situation in the process of decision. Like the Stevensonian theory in Stroll's interpretation, it is a linguistically disguised version of a naturalistic theory. Language is nothing but the overt and "logically" accessible sign of the choice-and-decision feature of a situation. Here lies the deeper axiological meaning of the Wittgensteinian view of language as a game: valuation is a game of choices in situations. This thought may be developed descriptively and formally, either logically or mathematically.[46] Since such "formal" treatment is based on an analytic concept, that of choice, it is no genuinely systematic, that is, synthetic, treatment of the subject. It applies to secondary qualities a device applicable only to primary qualities. Its methodological position is that of Pythagorean numerology rather than Newtonian mathematical phenomenology.

Language being a feature of the situation, and its situational character being regarded as its essential value feature, performatory language, that is, language as a constitutive feature of a situation, is to this school of particular relevance for valuation. This aspect of the Oxford view was developed, on the basis of J. L. Austin's classics,[47] by a number of acute writers for all kinds of contexts. H. L. A. Hart,[48] for example, draws an analogy between ordinary sentences and legal discourse. Concepts such as "contract," "property," "trespass," and the like, are not descriptive in the sense of being capable of definition—giving necessary and sufficient conditions for the existence of contracts, property, and so on—but are designated "by enumerations of cases, never closed, and with wide open '*etceteras*.'"

These concepts are defeasible in the sense that even where the standard elements of a contract seem to be present, a whole host of "unless" conditions (no duress, no immoral purposes, and so on) open up ways in which the existence of a contract may be subject to "defeat." Similar to these legal concepts, ordinary concepts of action and sentences like "This is yours," and "This is mine," are not used to describe, nor emotively, but to *ascribe* rights and responsibilities, and to *claim* rights, *recognize* rights, and so on. This is all part of *judging* in the practical sense of deciding. Many of these sentences can be explained only with reference to the non-descriptive context of the law. For example, the difference between "His body moved in violent contact with another's" and "He did it" (for example, "He hit her") can only be explained with reference to the non-descriptive uses of sentences by which liabilities or responsibility are ascribed.

This view of legal sentences is based on the nature of Anglo-Saxon rather than Continental law; thus, as does the "linguistics" of the Oxford School itself, it has a somewhat provincial basis, both geographically and methodologically. As Garcia Máynez[49] and others have shown, all these legal norms are exemplifications of logically and ontologically formal principles no different in this respect from scientific laws. This is another case of making specific exemplifications of general principles into prototypes, rather than elaborating the principles, the procedure of putting the cart before the horse that is the hallmark of this school. The ingenuity with which its adherents search out competitive prototypical contexts is in direct proportion to their ingenuity of avoiding genuine formal principles. Margaret Macdonald[50] urges that ethical judgments should be conceived neither after the pattern of scientific judgments, nor after that of commands or expressions of attitudes, but by analogy with, or upon the "model" of, certain kinds of ceremonial utterances, such as those of religious ritual and legal procedures. R. C. Cross[51] makes use of Gilbert Ryle's distinction between "knowing how" and "knowing that."[52] L. J. Russell argues that moral judgments should be interpreted as proposals: "Proposals can be argued about, reasons can be given for and against them; but these reasons are reasons for doing something, and not reasons for accepting something as true."[53]

All these proposals are exercises in a new "logic." No traditional kind of logic, the school holds, is capable of analyzing the situational or contextual character of language without forcing it into a strait jacket that could rob it of its vital meaning. Note the similarity with Ortega y Gasset; but while he thinks of "vital reason" with the sweep of a matador, the Oxford scholar thinks of it with the minuteness of a dissector. Value words, as used in ordinary discourse, cannot be understood by ideal languages or artificial logical constructions. Ethical reasoning follows a logic *sui generis*, different from both inductive and deductive logics.

Definition must be replaced by models that mirror more or less each possible situation and explain the use of value terms in it. We must, so to speak, put the microscope to each such situation and examine how value terms are used in their contexts. In doing so, as Gilbert Ryle[54] points out, we must be careful not to confuse *use* and *usage*. Usage is a matter for factual study to be left to the dictionary makers. The study of use is not a matter of linguistics but of "logic"—a logic of a new kind that implies the pluralistic view of language games. It makes it impossible to fit ethical meanings into any existing classification, not even the cognitive-emotive dichotomy of the emotivist school.

While the Oxford School shares the prescriptive emphasis of the emotive theory, it refuses to abandon the conception of some sort of validity in ethical inference. It reminds us that *we do offer factual statements as reasons for moral conclusions*, and it regards some reasons as better than others. In practical judgment, says Stuart Hampshire, are patterns of argument that "may be described as more or less rational in the sense that they are more or less strictly governed by recognized (though not necessarily formulated) rules of relevance."[55] Thus, moral, that is, decision, situations, have their reasons. The Oxford School is more rational than the emotive

semi-(non)-cognitivist school but less rational than the cognitivist schools. It is semi-cognitivist rather than semi-non-cognitivist; its cognitivist emphasis outweighs its non-cognitivist emphasis. Its non-cognitivist emphasis lies in its insistence on the "sterility" of definitions in ethics—one of the four fallacies in moral philosophy according to Hampshire—while its cognitivist emphasis lies in recognizing situational reasons, the irrationality of moral situations being another of the "fallacious" views of moral philosophy. But this rationality is not scientific or naturalistic (a third "fallacy")—it is *sui generis*; yet, it has connections with matters of fact—and to deny this is the fourth "fallacy."

Just how freely the critics of Moore's naturalistic fallacy avail themselves of Moore's method is amazing! Reasons in moral situations are then both *moral* and *reasons*: they are not anything else but *moral*—and in this respect the school develops the essential point made by G. E. Moore—and they are not anything else but *reasons*. They are not commands; they guide rather than goad, to speak with W. D. Falk;[56] and in this respect the theory contradicts the emotive theory. Although the semi-cognitive formalist theory is more cognitive than the emotive theory, it is not a cognitive theory. While it recognizes reasons, it denies Reason in axiology. Its "reason" in moral situations is retail, not wholesale. Reason presumably would arise from overall definition, which is ruled out.

The school approaches the problem of value inductively or empirically. It looks, as Abraham Edel felicitously expressed it, for value in situations as the empirical scientist looks for specimens in nature. Edel said, "New finds are announced with every other issue of *Mind*."[57] Since the Oxford School has no overarching philosophy, every little detail, which in such a philosophy would follow as a matter of course, appears as a momentous discovery. But it does not look for the overall synthesis that would produce a discipline of Axiology. It is a Linnean rather than a Darwinian axiology, and it is so consciously and militantly.

No one problem in Ethics is fundamental, says Stephen E. Toulmin.[58] The belief that such a problem exists is responsible for the feeling that moral philosophy makes no progress. Here is a nice example of making a virtue out of a supposed necessity. For Toulmin,[59] an ethical judgment affirms that something constitutes a good reason for acting a certain way. Reasons, he insists, can be good or bad even if they do not give a logical or a scientific proof of the rightness of the actions to which they point. True to the axio-empirical principle of the school, Toulmin explores individual situations of decisions and distinguishes in them various kinds of "good reasons," such as reasons for a particular act under an existent code, reasons for altering or maintaining a code (for example, in terms of lessening sufferings), reasons for trusting a man, recommending reforms, and so on. But he refuses to acknowledge Reason in ethics; he is suspicious of theories: "A descriptive account of our ethical concepts is what we need....Ethics is concerned with the harmonious satisfaction of desires and interests." Yet, he is not beyond generalizing.

> On most occasions it is a good reason for choosing or approving of an action that is in accordance with an established maxim of conduct, for the existing moral code, and the current institutions and laws, provide the most reliable guide as to which decisions will be happy—in the same kind of way as codes of standard practice in engineering.[60]

If such a practice works, it is worthy of adoption. To anyone asking why these reasons are *good*, says Toulmin, "I can only reply by asking in return, 'What better kinds of reason could you want?'"[61] J. L. Mackie[62] rejoins that he would like reasons that are a little less conventional.

Thus, rebels against philosophy end up as conformists to society.

Other members of the English branch of the semi-cognitivist school share with Toulmin the peculiar combination of theoretical originality and practical triviality that is the hallmark of all acute analytic procedures—in natural science so strikingly demonstrated by the alchemists; whereas the very opposite combination, theoretical triviality (of self-evident axioms) joined with revolutionary practical originality, is the hallmark of all synthetic procedures.

The ethical theories of the Oxford School run the entire gamut, from theoretical complexity without relevance to theoretical simplicity with relevance, from semi-non-cognitivism to a kind of semi-cognitivism which, but for the contextual rooting of classification, would be cognitivism. This gamut is represented by the works of P. H. Nowell-Smith, R. M. Hare, and Stuart Hampshire, respectively. Nowell-Smith is hopelessly mired in the disorder of word families, but from his point of view, he has triumphantly overcome the restrictions that logic imposes upon life. Hampshire uses classification to found ethics in it. To the degree that these thinkers approach systematic order, they move from the procedures of the later in the direction of those of the earlier Wittgenstein. From the point of view of the earlier Wittgenstein, this movement is hardly detectable, and there is still an astronomical distance between the logical profundity of the earlier Wittgenstein and the logical primitivism of Hampshire. But compared to the rest of Oxford philosophy oriented—or disoriented—by the later Wittgenstein, Hampshire's procedure is a model of clarity and systematization.

The *Ethics* of P. H. Nowell-Smith does not appear to refer explicitly to Wittgenstein, but it uses his method as an alternative to the naturalistic method that Moore castigated. Nowell-Smith did not find the clue for a scientific ethics in Moore himself because he could not imagine a property that is *not empirical and yet logical*, in the usual sense of this word. He agrees, with qualifications, with Moore that moral discourse is different from naturalistic discourse and that moral predicates are different from descriptive predicates. But he believes that only descriptive predicates refer to *properties* and that moral predicates do not. He regards as properties "the typical logician's examples, such as 'blue,' 'loud,' and 'round.'"[63] From this erroneous assumption he reproaches Moore for calling 'good' a property, for this would mean

that its logic is the same as that of the adjectives mentioned—whereas Moore's point was that the logic of 'good' is *different* from that of these adjectives.

> Moore intended to mark an important difference in logical status and behavior between 'good' and 'yellow.' Yet this is precisely the sort of difference that is denied by calling goodness a property. For what is it to call goodness a property but to say that the logic of 'good' is like that of other property-words? The terminology that Moore used to mark an important difference that he noticed between 'good' and other adjectives was singularly ill-adapted to bringing out just this difference.[64]

Moore never said "that the logic of 'good' is like that of other property-words." Nowell-Smith says this on the basis of an erroneous assumption. He does not see that the typical logician's kit contains examples other than the simple ones he names (for example, second-order properties, such as "typical,"[65]) and that such properties have a different logic from that of first-order properties. Thus, "good" may well be a property and yet have a different logic from descriptive properties, as Moore made abundantly clear. This logic is part of usual logic in the technical sense; it not only shows a logical connection between the property "good" and the good-making properties of a thing; it also fits in with Moore's own approach to the problem of goodness, as seen in previous discussions.

Nowell-Smith, not seeing these connections, yet aware of the correctness of the naturalistic fallacy up to a point, must fall back on the device of a special logic, invented *ad hoc*. This not only contradicts his recognition of the naturalistic fallacy but leads him to commit it. He identifies the descriptive properties of Moore with empirical sense properties and hence Moore's non-natural and non-descriptive properties with non-empirical, non-sensorial properties, tested by something other than sense perception and bringing into play "a special act of awareness,"[66] an act of *emotion*. Since Nowell-Smith holds that the different kinds of awareness belong to the *logic* of the respective kinds of words, the difference implies that there can be no *logical* connection between goodness and good-making properties, for both have their own distinct logic.[67] In holding that the *sensorial* nature of the "typical logicians' examples" of properties is part of the logical nature of the corresponding predicates, and the *emotional* nature of the ethical logician's examples of value properties, such as "sublime" or "good," is part of the logical nature of the corresponding value predicates, he confuses logic with psychology and commits the *fallacy of method*: he confuses the structure of language with the psychological set up of the language user. This consistently leads him to the *naturalistic fallacy*: the psychological context of the value words is confused with their ethical context. The logic of "property-words" is confused with the context of empirical discourse, and the logic of value words with the context of emotive discourse. The first is the fallacy of method, the second the naturalistic fallacy.

Moore clearly distinguishes these different levels and expresses them in his own paradoxical manner. Nowell-Smith, whose temperament is against clear distinctions, only sees a paradox; instead of finding in Moore's philosophy the clue for a scientific ethics on the basis of rigorous technical logic, he invents his own logic, "with as little recourse to the technical terms of traditional logic as possible,"[68] and in doing so embraces the Wittgensteinian method. The result is a logic lacking the fundamental distinctions of true logic, a logic without rigor, whose "deliberate vagueness"[69] is perfectly adapted to "the lazy consequences" Russell saw in the Wittgensteinian doctrine. Words are lifted out of the realm of thought and put down in the realm of action; they become actors in discourse rather than elements of discursiveness. Logic becomes the choreography of the movements, the pragmatic description of the behavior of words.

> For the question 'What does the word...mean?' I shall therefore substitute the two questions 'For what job is the word...used?' and 'Under what conditions is it proper to use this word for that job?'....I shall simply abandon the familiar model of words as labels attached to things and treat them as tools with which we do things. Talking is not always naming or reporting; it is sometimes doing.[70]

Thus, Nowell-Smith states with clarity that he bases his program on what I call the fallacy of method.

His logic, then, becomes the choreography of *word behavior*. Words exhibit "logical behavior."

> If we examine the adjectives used in ordinary discourse we find that they exhibit a great variety of logical behavior. The grammatical form of an adjective sometimes gives us a clue to its logical behavior; for example adjectives ending in -ent, -ible, -ous, and -ic fall into families which differ logically from each other, and we can often tell something about the meaning of a new adjective from its termination in the same sort of way that a chemist could deduce something about a compound unknown to him from the fact that its name ended in -ite, -ate, or -ide. But termination is not an altogether reliable guide to logical behavior.[71]

The comparison with chemistry shows up the confusion of Nowell-Smith's procedure. The chemist can deduce something about an unknown compound from the name of the compound because the name is part of a system, was invented so as to fit into it, and the common-usage name of the compound was expressly abolished.[72] Either, therefore, Nowell-Smith's comparison presupposes a Lavoisier of moral language, or his example ought to refer to alchemy rather than chemistry. Since he abhors the system-building discipline of a Lavoisier, his example ought to refer to alchemy. This, in turn, shows up the alchemical nature of his use of language.

Like a good alchemist, to provide a semblance of order in the chaos of word behavior, Nowell-Smith uses a tool that has all the characteristics of a magic wand. Its name is "logical oddness." A question is called "'logically odd' if there appears to be no further room for it in its context because it has already been answered."[73] It would be logically odd to ask a man obviously having a nice smoke whether he enjoys it. It is logically odd to ask a person giving reasons for choosing a course of action why these reasons lead him to choose it. "Logical oddness" is a device that cuts off all questions about non-contextual justification. It is a magic wand that makes uncomfortable questions disappear in a trap door, a "logical" tool that stops axiological curiosity. "Why is the existence of a debt a reason for paying it?" This question is logically odd once I have said that I pay because I owe. It would be logically odd to enter into a discussion about the nature of legal obligation and its relation to moral obligation. Particularly odd in this theory is that logical oddness applies both to the agent in the situation and to the ethical philosopher dealing with it. As we have seen, the Wittgensteinian philosopher must not supersede the chaos of contexts but become a part of it. All he or she can do is make surveys; so all Nowell-Smith proposes to do in his Ethics is "discuss the ways in which the different words of [contextual] reasons fit into each other"[74]—a kind of puzzle game of fitting verbal pieces, but not into a whole. The rule of "logical oddity" is the device of making sure nobody will cheat at the game and of looking at the total picture of the puzzle.

For Nowell-Smith, ought-judgments about our own actions are decisions or choices. From this he draws the conclusion that there is something "logically odd" about not doing what we think we ought to do, and similarly about not choosing what we think best.[75] Yet, he rejects as an over-simplification the view that ought-sentences are disguised commands.[76] "We use 'you ought' sentences precisely when we are not in a position to issue orders; this fact and the fact that these sentences must be backed by reasons provide an important clue to their logic."[77] He suggests, in good Wittgensteinian manner, that the significance of "oughts" varies widely according to the context and cannot be reduced to any single function, even if we confine ourselves to the distinctively moral "ought." Why "moral 'ought'" should vary less widely than "ought" is not investigated.

This naive reliance on the wisdom of ordinary language is something that analytic value philosophers have in common with prescientific natural philosophers. Since "ought" seems to be a genus and "moral 'ought'" a species, it seems obvious that if they both "vary widely" the first must vary more widely than the second. But methodologically this is nonsense. If moral "ought" is an application of "ought," it varies more widely, just as more variation exists in actual circles than in the geometric circle. Nowell-Smith regards it as a disaster and a major cause of the error of objectivism that "ought" has been separated from its subject-pronoun, whereas the word has a quite different function in, "I ought" and "you ought."[78] In relation to others it is better to think of ought-sentences as giving *advice* than as issuing commands, though "advice" is often too weak a word.[79] In relation to ourselves, such sentences express *choices* rather than commands.

Here again is the sampling or "specimen" analysis of ethical terms. The cognitive uses of these terms are so closely bound up with the context in which the terms occur that it becomes seriously misleading to make them explicit by the ordinary process of definition. Instead, we must examine the terms when they are at work, example by example, pointing out in each case what sort of information they have to convey. The aim of his book thus is not to answer the questions of ethics, What ought I to do here and now? What ought I to do in general? Why should I adhere to any moral code at all? It is rather "to make clear the complicated connection between such words as 'good,' 'right,' 'ought,' 'choose,' 'duty,' 'desire,' 'pleasure,' *etc.*"—all as pieces of the puzzle, by piecemeal sampling or at most primitive classification according to contextual word "behaviors," instead of as examples of a systematic order.

Following this militantly alchemistic Wittgensteinian program—which, in natural philosophy, would have strict rules against any but the most ordinary kind of thinking—Nowell-Smith forms three grand word-use families: A-uses (A-words), D-uses (D–words), and G-uses (G-words). The first are *aptness* words, indicating that an object has certain properties that are apt to arouse a certain emotion or range of emotions within us, such as "sublime" or "comfortable"; the second are *descriptive* words like "red" or "yellow"; the third are *gerundive* words that bid us do something, such as "praise-worthy," "note-worthy," "laudable," and "damnable." "A dress may be red, comfortable, and indecent. A ball may be a leg-break, tempting, and over-pitched. A man may be blue-eyed, amusing, and admirable."[80] The three kinds of words are subject to three kinds of "logic."

To understand the logic of A-sentences, we must ask not what does the sentence (always) mean, but what does *its use in this instance contextually imply*. "Contextual implication" means (a) no logical implication or (b) common sense connections between a speaker and his situation.[81] The elements "contextually implied" in typical uses are the subjective, the predictive, the generalizing, and the causal elements. The subjective element means that in default of other evidence the use of an A-sentence usually implies that the speaker has the appropriate reaction. The predictive element implies that anyone would have the appropriate reaction if suitable circumstances arose. The generalizing element implies that a person who uses an A-sentence statement, such as a prediction, contextually implies that he or she has what he or she believes to be good reason for making the prediction. The causal element refers to the properties contextually implied by the word that give the value characteristic it has; for example, good springs, a heater, and plenty of leg room are the causal elements that make a car comfortable. They are what other writers call the good-making properties. For lack of any strictly *logical* relation—in the traditional sense of the word—they are, for many writers, as for Nowell-Smith, causally related to the value property, and this causal relation becomes an element of the contextual neo-logic.

This logic, applied to the word "good," examines the use of "good" in various contexts,[82] the logics of the three word families being applied to these

contexts. "Good" is used in the context of choice, of advice, of praising and applauding, of verdicts and appraisals, of efficiency and skill, and also descriptively. In the context of *choice* it presupposes an A-property and some ordinary empirical property on which the A-property depends. While the factual answer to the question, "Why did you choose this car?" says what the empirical properties are ("because it has leg room") and contextually implies an A-property ("comfortable") without specifying what it is, the A-answer ("because it is comfortable") does the reverse; it specifies the A-property ("comfortable") and contextually implies the empirical property ("leg room," and the like). The goodness of something is not one of the properties for which I choose. To say it is would be "like saying that I was frightened because it was a terrifying experienced"[83]—or like the alchemistic explanation of sleep as a dormitive quality. Rather, "good" points toward "good-making" properties, and they are the reasons why I choose. To say that I choose a thing "because it is good" shows *that* I am choosing but not *why*.

Here is the logical nature of "good"—the thing is chosen as good because it fulfills its intensional properties—veiled in a pseudo-logical context, that of the causality of "choice." There are, says Nowell-Smith, "logical ties that bind goodness...closely to choosing;"[84] but their logicality is material, "contextual," and not formal, and hence pseudo-logical rather than logical. The trouble is that the tie is not close enough, and it is by no means unusual, let alone odd, let alone "logically" odd, to call something "good," "better," and even "best" and yet *not* choose it. "She is the best whore in town" does not mean that I have a pro-attitude toward her; "She is a really good girl" may actually be used to justify an anti-attitude, for what I really like are bad girls. Such "exceptions" are typical signs of analytic guesses rather than of synthetic penetration, and they are the pride of "practical" logics. The contextual substitutes for axiological penetration do not account for value reality, nor even for ordinary value language. Rather, they show up the useless nature of "contextual implication"—a catchall that really catches nothing—and the tricky nature of "logical oddity," a trap door that opens as soon as a mind approaches having an axiological curiosity ever so slightly surpassing that of the man in the street. All somewhat deeper axiological questioning, let alone a true axiological problematic, becomes "logically odd." The philosopher becomes kind of strange. Holding that true axiological explication should only be possible on a level of language higher than the ordinary appears "positively and most emphatically" as "disastrous."

Nowell-Smith's "contexts"—"choice," "efficiency," and so forth, are analytic concepts parading in the disguise of a "practical logic" that conceals their theoretically logical nature. H. J. McCloskey[85] presents an acute criticism of Nowell-Smith's word families and their contextual uses, showing up the arbitrariness of the procedure. Their analytic implicativeness thus becomes a "contextual implicativeness," and if the first was vague, the second is all but meaningless: "Unlike the rules of logical implication [the rules of contextual implication] can all be broken without the speak-

er's being involved in self-contradiction or absurdity."[86] Thus, *ignotum* is "explained" by *ignotius*. All these "contexts" are only different ways of veiling the truly logical nature of goodness.

This is especially striking within the contexts of efficiency and skill. In the context of *efficiency*, "good" is predicated of any object used for a purpose: "good" implies the presence in a relatively high degree of those properties that the object must have to do its job. But it would be a mistake, according to Nowell-Smith, to say that "good knife" just *means* "knife that is sharp, easily handled, durable, *etc.*" The connection between the properties that a knife must have to be efficient and its efficiency is an empirical one. We know from experience that a knife that lacks these properties completely just won't cut and that its relative efficiency at cutting depends on the degree to which it has these properties. We cannot say that "good knife" means "knife which cuts efficiently," because we could understand what "good" means in the expression "good knife" without knowing what knives are for. Rather, "good knife" (in the relevant sense of "good") means "knife which has those properties (whatever they are) which a knife must have if it is to do its job efficiently (whatever that is)."[87] Here the conceptual, and hence formally logical, nature of "good" almost leaps at the reader, but without being recognized by the author. In the context of *skill*—when we call a person a good lawyer, scholar, cricketer, or liar—the use is similar to the "efficiency" use except for the fact that, since these are people, the purpose concerned is their purpose, not the purpose they are used for.[88]

"Good," says Nowell-Smith,

> is *the* Janus-word *par excellence*; it is often used to do more than one job on one occasion; and the logical connections between the various jobs are what they are because the facts are what they are. It is also most emphatically an ordinary, non-technical word, and it is a consequence of this that the logic of its use reflects empirical truths that hold only for the most part and admit of exceptions. For ordinary language, unlike mathematics, is not deliberately constructed by people who have a keen eye for consistency and rigor; it is not deliberately constructed at all, but grows and changes [in its environment].[89]

Here we see clearly the Wittgensteinian confusion between philosophy and its subject matter. Ordinary language includes both number words and moral words. When a truck-driver says to another, "Do you want one or two kicks in the pants?" he most emphatically uses "one" and "two" as ordinary non-technical words. Such use has never prevented mathematicians from constructing the same terms—"one," "two"—technically and logically in a formal sense, thus creating a higher level of number language called "mathematics." In the same way, although there is an ordinary contextual use of value words such as "good," and "bad," this does not have to prevent axiologists from constructing the same terms technically and logically in a formal sense, thus creating a higher level or moral language called formal axiology.

Opposing ordinary *moral language* to *formal number* language, as Nowell-Smith does in the passage cited, is methodologically illicit. What may be opposed with methodological correctness is *ordinary* language and *formal* language, and *moral* language and *number* language. The respective *correspondences* are ordinary moral and ordinary number language, and formal moral and formal number language; the respective *oppositions* are ordinary moral and formal moral, and ordinary number and formal number language. Disregarding formal moral language and ordinary number language is arbitrary; it is logically and methodologically not only odd but fallacious. An emphasis is not a corrective for a logical fallacy.

Although, according to Nowell-Smith, the contextual implications of the uses of "good" are too many and varied to be accountable in conceptual terms, he cannot refrain from this sweeping generalization: "There is one element which seems to be common to all cases. Although a man need have no comparison in mind when he calls something 'good,' such comparisons are always implied."[90] These are comparisons of degrees of feeling.

> We always praise something with a certain degree of warmth which lies somewhere on a scale between mild commendation and hysterical adulation. The word 'good' can be used to express almost any degree of warmth, but it must be less than that expressed in the sure context by 'excellent' or 'super' and greater than that expressed by 'fair' or 'tolerable.'[91]

Nowell-Smith thinks it is not difficult to understand the connections between the various contexts of "good" and

> the more obviously performatory uses, praising, applauding, and commending; nor is it difficult to appreciate their intimate connection with preference and choice. To praise is not to choose; but it is corrected with choosing in that it would be odd for a man to choose the thing he was prepared to praise less highly or not at all....Praising is logically tied to approval; for if we heard a man praise something, we could not wonder whether he approved of it or not unless we suspected him of being disingenuous or ironical; and it is logically tied in the same way to encouraging....The same logical ties bind praising to advising; it would be logically odd to praise one candidate more highly than another and to go on to say that one was advising against his being given the job or the price.[92]

All these uses then are "connected" by logical oddness, a very tenuous tie even if it were true—but it is not true. I can say, with Leonid Brezhnev, that Nikita Khrushchev is a much better man than Joseph Stalin without advocating his leadership of Russia. Contextual logic breaks down as soon as the contexts are questioned. I can praise within a context and condemn the context.[93] Actually, most morally profound prob-

lems are of this kind—hence the shallowness of this highly contrived ethics with its combination of practical triviality with theoretical complication.

Nowell-Smith believes that contextual logic will give us insight into the nature of value language and that no confusion is more important and pervasive than that of transferring to the analysis of moral discourse the logical concepts successfully used to elucidate the discourse of mathematics or science.

> This has led philosophers to misrepresent knowing how to lead one's life as knowledge of theoretical truths, either about human nature or about a special realm of 'values.' This error, combined with the realization that truths of fact do not entail imperatives and that neither truths of fact nor imperatives entail decisions, has led to the doctrine that moral words must stand for special entities and to the postulation of a special faculty to account for our knowledge of moral truths. The crucial difference between practical and theoretical discourse has been misrepresented as a difference between sets of objects described, instead of represented as a difference in the role performed by different types of expression.[94]

Although value words are *sui generis* and cannot, as Moore rightly held, be defined in terms of pleasure, desire, or purpose, Nowell-Smith believes

> psychology is not as irrelevant to ethics as some modern philosophers insist; for, although moral judgments do not follow from psychological statements, we cannot understand what the terms used in moral judgments mean unless we examine them in the context of their use; and they are used either directly to express a pro- or con-attitude or to perform some other task which beings who had no pro- or con-attitude could not perform or even understand.[95]

The language of value is intelligible only in connection with the language of purpose and choice: people choose to do what they do because they are what they are, "and moral theories which attempt to exclude all consideration of human nature as it is do not even begin to be moral theories."[96] Here we have the linguistically disguised naturalism mentioned previously. Writers like Avrum Stroll[97] detect it in the emotivist school, and writers like Everett W. Hall[98] see it in the Oxford School. Yet, it is tempered by a vague insight into the uniqueness of man, used not as a challenge to investigate this uniqueness, but as an excuse for dispensing with conceptual thinking.

> Decisions and imperatives do not follow logically from psychological or biological descriptions; but the sort of life that will in fact be satisfactory to a man will depend on the sort of man that he is. Generalization is possible only in so far as men are psychologically and biologically similar. There are some types of life that we can say outright that no man would find satisfactory; but practical advice is not necessary when it is obvious. In cases which are difficult

> to decide it is vain, presumptuous, and dangerous to try to answer these questions without a knowledge both of psychology and of the individual case.... The questions 'What shall I do?' and 'What moral principles should I adopt?' must be answered by each man for himself; that at least is part of the connotation of the word 'moral.'[99]

But what part it is, and what, precisely it means, are questions no contextual logic can answer.

R. M. Hare moves one step closer to answering these questions. His book, *The Language of Morals*,[100] has probably been the most influential in Britain during the second post-Moorean period, perhaps because he has worked out in greater logical clarity than any comparable work the fundamental relation of axiology, that between the descriptive (value-making) and the value properties of a thing. In spite of his efforts, this relation remains essentially obscure, which confirms that a gap exists between analytic and synthetic axiology that no—even if ever so acute—analytic procedure can close.

Hare approaches an imperative theory of value judgments, even though he does not quite adopt it. In his view, ethical judgments consist of (a) a naturalistic descriptive element and (b) a prescriptive element analogous to but not identical with an imperative. He insists that ethical conclusions, as prescriptive, can never be inferred from indicatives alone, thus refuting alike the naturalist view and Moore's view that duties can be derived from an indefinable non-natural property of goodness possessed by the consequences of acts.

Hare's clue to the nature of "good" is the word "commending." The main point of saying that something is good is to commend it. His main objection to naturalism is that if we identify good—whether in ethics or in, for example, aesthetics—with a particular *factual* property, we shall then be unable to *commend* anything for having that property. This objection, he insists, has nothing to do with morals in particular but is due to the general characteristic of value-words; it is axiological, not ethical, aesthetical, or the like. Sentences ascribing goodness to something, while not prescriptive in the same direct way as ought-sentences, come close to being so, for their purpose is always to guide *choices*, at least indirectly. Ethical judgments about our own future actions are for Hare *decisions*; hence, we can hardly give an account of them that admits the possibility of voluntarily going against our own ethical judgments. In some cases, "good" may be used descriptively. When we have decided what the characteristics are for which we commend a certain kind of thing, we may then use "good" just to signify that the object to which it is applied has these factual characteristics; but this usage is derivative and secondary.

R. M. Hare arrives at his commendatory characterizations of value very much in the same way as Paul Edwards arrives at his emotive characterization—through lack of determination of the relationship between the value property and the value-making properties of a good thing. Like Aristotle and Edwards, he cannot find the common feature of all good things in their value-making properties. Hence, instead

of logically defining goodness by such properties, he must move on to a non-logical —or to the Oxford School, neo-logical—feature possessed in common by all good things: their commendatory feature. This feature, he believes, is *constant* in the meaning of "good" for every class of objects. Hare calls it the evaluative meaning of "good," while the descriptive meaning is that conveyed by the good-making properties, which, according to Hare, do not constitute the meaning of "good" but merely *criteria of its application*. Yet, Hare does not draw the seemingly obvious conclusion that "good" in its evaluative meaning is *variable*. The meaning of "good" is the evaluative one that expresses our capacity of choosing. When we call a motorcar or a chronometer or a cricket bat *good*, we are commending all of them, meaning we would choose them for particular purposes. But because we are commending all of them for different reasons, the descriptive meaning of "good" is different in all cases. It is what Aristotle calls homonymous and Edwards calls polyguous. Just as Aristotle and Edwards circumvented this multifariousness of descriptive meaning, the first by his definition of virtue as a disposition to govern our choices (as Hare notes in a motto) and the second by regarding value as involved in our attitudes, so Hare circumvents it by making choosing the fundamental value feature.

No axiologist has yet seen what is fundamental in science: that what supersedes and accounts for all specific cases is not another class of such cases but only its logical form. Hare's substitute for this form is especially interesting, since he tries to give the substitute all the *logical* properties of the real thing. Once we know how to choose, he believes, we know how to judge good-making properties of things, *no matter how they may change in particular cases.* We have knowledge of the *evaluative* meaning of "good" from our earliest years; but we are constantly learning to use it in new *descriptive* meanings, as the classes of objects whose virtues we learn to distinguish grow more numerous. Because of this constancy of the evaluative meaning as against the changeability of the descriptive meaning, Hare gives primacy to the evaluative.

I could object, as I did in the case of Edwards, that the descriptive meaning could be constant only if the relation between it and the value feature were *logically* determined. Then Hare's reason for the primacy of the evaluative meaning and, indeed, for this meaning altogether, would disappear. The descriptive meaning would be at the same time the evaluative meaning, even though in another aspect.

Hare comes close to such a determination—so close, indeed, that Philip B. Rice[101] feels that Hare may have stumbled on a definition of the cognitive element in value without realizing it. He finds the relation between a value expression, such as "a good motorcar," and *the criteria of its application*, to be very like the relation of a descriptive expression, for example "motorcar," *and its defining characteristics*. The value-fact relation is very much like the relation between *definiendum* and *definiens*. This analogy is at the basis of the axiom of formal axiology: a thing is good if it has its defining (and expositional) properties. Hare approaches this axiom as closely as an analytic account can.

> When I commend a motorcar I am guiding the choices of my hearer not merely in relation to that particular motorcar, but in relation to motorcars in general. What I have said to him will be of assistance to him whenever in the future he has to choose a motorcar....This process has, as we have noticed, certain features in common with the process of defining (making known the meaning or application of) a descriptive word.[102]

Once the axiological *identity* of valuation with definition is known, Hare's commendatory feature appears like a veil thrown over the logical meaning of valuation whose very thinness makes it the more frustrating. Hare *almost* explains the logical nature of value, and the reason he does not actually do so—even though he uses the word "logic" freely—is that he is still caught in the analytic method of old-fashioned ethics. He replaces "virtues" by the descriptive term "good-making characteristics" but does not identify them with the logical term "definitory characteristics"; and he does not identify either the good-making or the defining characteristics with the meaning of good. He does see clearly that this meaning is conceptual rather than descriptive. In veiling this insight—wrapping it in the web of "commending"—his value theory is like a cocoon that hides the butterfly of formal axiology. Hare sees the logical properties of commending and choosing in the conceptual properties of that which is commended and chosen, but he does not take this logical insight seriously. It "explains" a logical relationship by a pseudo-logical one, that of "commending," rather than *vice versa*[103] (just as Aristotle explained logic by teleology rather than *vice versa*[104]). We have here a definition of *notum per ignotum* that is one step lower in logical oddness—to use a term of contextual "logic"—than explaining *ignotum per ignotius.*

This is equally clear in Hare's second reason—the first being the "constancy" of the evaluative meaning—for calling the evaluative meaning primary and the descriptive secondary, namely that we use the evaluative force of the word in order to *change* the descriptive meaning for any class of objects. For example, a car with properties *a, b, c,* may have been called good ten years ago, but another car with properties *e, f, g,* is called good today. Here the evaluative meaning of the word is used in order to shift the descriptive meaning. We are doing what would be called, if "good" were a purely descriptive word, *redefining* it. But we cannot call it that, for the evaluative meaning remains constant. What we are doing is altering the standard.

Against this argument, I observe that *there is no reason why we should not regard the definition or intension itself as a standard.* "Good" then would be a logical word, meaning simply that a thing fulfills its definition or intension. This meaning of "good" would be constant, not dependent on any particular definition or any particular set of properties, such as those of automobiles. It would refer to any intension and any totality of properties determined by it; it would be a variable. In this case the second reason for Hare's preference of the evaluative as against the descriptive meaning of "good" would also disappear.

That such a definition of "good" is feasible is shown at the very source where Hare finds his motto for "good." The *Oxford English Dictionary*, after stating that "good" is "the most general adjective of commendation," adds as the meaning of "good": "Of things: Having in adequate degree those properties which a thing of the kind ought to have." This is precisely the definition of extrinsic good given in formal axiology. In *The Shorter Oxford English Dictionary*, the formula character of the definition is even clearer. It identifies *name with norm*: "Good...Of things: Being what they are or ought to be."[105] This formula is constant for all things such as chronometers, cricket bats, and so on. It can be developed systematically and extended to intrinsic and other forms of value, as an analytic concept such as "commendation" cannot. The formula takes definition or intension itself as the standard. Hare's bias against the use of old-fashioned logic in value analysis is due to the pseudo-Wittgensteinian infection of his school that prevents him from seeing the simple in the complex—the purely logical and conceptual—and leads him, in opposition to Ockham's razor, to multiply entities beyond necessity: "A logician can not do justice to the infinite subtleties of language....A full understanding of the logic of value terms can only be achieved by continual and sensitive attention to the way we use them."[106]

This view rests on a value judgment comparing logic and ordinary speech. Its reason may be as far outside the realm of philosophy as those that E. A. Gellner adduces to explain the phenomenon of Oxford philosophy and its success; but let us make an excursion in this direction. G. J. Warnock speaks of the "invaluable non-simplicity of ordinary speech" as against the "neat simplicities of logic" that must not be imposed "upon the troublesome complexities of language."[107] These troublesome complexities are the confusions and contradictions of ordinary speech. Calling these "invaluable non-simplicities" shows a preference of disorder over order, the mark of the rebel. Bertrand Russell in logic and G. E. Moore in ethics represent what R. F. Harrod, with reference to the Cambridge birthplace of their friend John Maynard Keynes, calls "the presuppositions of Harvey Road, namely the security and good order of the British Empire."[108] These presuppositions crumbled around the ears of the young rebels. Their thinking had to adjust to cataclysmic change; and what easier way than that of the fox and the grapes? If what is gone wasn't worth preserving in the first place, the loss might actually be a gain. Such an attitude came especially easily to what Alfred North Whitehead called "the mocking atmosphere of Oxford,"[109] especially when aided by a shot of Fabianism. As a result, the old gods, rather than being mourned, were kicked. Bertrand Russell, rightly from his point of view, was incensed at this rebellion against what he believed to be the established order. "Mr. Warnock deliberately and consciously ignores all that logicians have done to clarify the problems with which he professes to deal,"[110] and he looked at this dismissal of his life's work in about the same way that Winston Churchill looked at his dismissal by the British people during the Potsdam

Conference. To push the analogy a step further, the Oxford rebellion against established philosophical authority was not only an expression of the rebellion of the British against the ghost of the Empire, but also of youth all over the world against their respective Establishments.

Formal axiology demonstrates that value logic is like any kind of logic, and the definition of value is like any definition; namely, it is a formula that accounts for the uses of terms, as does a formula in natural science.

The Oxford commitment to obscurity plays havoc with Hare's insight into the phenomenon of moral goodness, the touchstone of any axiology. Hare's commendable endeavor is to show that his axiology is consistent and that the evaluative meaning of good is the same in moral as in any other kind of goodness.[111] His conclusion is that it is, namely, commendatory; only that in the use of "good" it is people who commend each other, whereas chronometers and cricket bats cannot do so. Hare's axiological instinct is acute—in a formal axiology, the same formula must account for both good in general and moral good, which must appear by a specific difference as an application of general good.[112]

Yet, his solution of the problem is inadequate. People can commend people without using the word "good" morally, as when I say, "I got a good man in my office," or when I write a letter of recommendation, even if I use the word "commend." Such letters—"To Whom It May Concern. I commend to your attention..."—are usually non-moral uses of "good" (unless, say, the letter recommends a Franciscan friar). The criterion distinguishing moral and non-moral goodness must arise by the power of the system itself. Formal axiology, not playing games with word uses, cannot find the *differentia* in different uses of the word "good." It finds them in the set of descriptive or good-making properties itself, not in this or that descriptive property, but in the structure of the set, the axiometric structure of intension. There may be other systematic solutions, but so far none have been proposed. Logically, it seems impossible to have a solution without an identification of descriptive and evaluative meaning, and this is not found in Hare. Once this is understood, following his struggle with the problem is extremely instructive.

Hare says,

> The properties which make a man morally good are obviously different from those which make a chronometer good. It is therefore easy to think that the *meaning* of the word 'good' is different in the two cases. But this can now be seen to be a mistaken conclusion. The descriptive meaning is certainly different, as the descriptive meaning of 'good' in 'good apple' is different from its meaning in 'good cactus'; but the evaluative meaning is the same—in both cases we are commending.[113]

I would say that the evaluative meaning is the same; in both cases we are using the concept of the subject as the norm of its value. A good apple is an apple that fulfills

the intension of 'apple' and a good cactus is a cactus that fulfills the intension of 'cactus.' Another reason, Hare continues, has led people to hold that the use of the word 'good' in moral contexts is different from its use in non-moral ones; "it is felt that somehow 'moral goodness' is more august, more important, and there-fore deserves to have a logic all its own."[114] We do, says Hare, attach more importance to a man's being a good man than to a chronometer's being a good chronometer.

In a consistently formal axiology, this difference in importance must come out in the contrast between intrinsic and extrinsic value—in the value that is put on different kinds of value in the hierarchy of values. This hierarchy must be as consistently accounted for as the kinds of value themselves, but a hierarchy of values is a requirement of a value theory that no Oxford-School axiology can fulfill. Hare, at this point, goes off on the emotive tangent. "We get stirred up about moral goodness in a way that few people get stirred up about technical or other sorts of goodness."[115] This is obviously false, as the prevalence of wars, revolutions, and other collective involvements like football, soccer, and sports cars shows. More people get stirred up about technical and other sorts of goodness like ideologies than about moral goodness.

But let us concede Hare's point. He continues, "We have to ask, therefore, why it is that we feel this way, and whether the fact that we do makes it necessary for us to give an entirely different account of the logic of 'good' in the two cases."[116] His answer is the simple one that "We get stirred up about the goodness of man because we are men." This difference between our judgment of men, including ourselves, and chronometers is, he says, sufficient to account for the special emotive status of morals. But this special status does not require a special logic to back it up.

> It results from the fact that we are using the ordinary apparatus of value language in order to commend or condemn the most intimate actions of ourselves and those like us. We may add that the 'emotivity' of much moral utterance, which some have thought to be of the essence of evaluative language, is only a symptom—and a most unreliable one—of an evaluative use of words. Moral language is frequently emotive, simply because the situations in which it is used are situations about which we often feel deeply.[117]

Hare restricts the emotivity of value language to the moral and maintains that this difference between moral and non-moral value language makes it clear that the essential logical features of value-words can be present where the emotions are not markedly involved.[118] He thus moves from logic to emotions, as does Paul Edwards, but, unlike Edwards, only in the moral sphere. In the non-moral sphere the commendation is less emotive, but in both spheres good means commendation. In neither case is the relation what Hare calls a

> form of naturalism; it is not the case that there is any conjunction C of descriptive characteristics such that to say that a man has C entails that he is morally

> good. For, if this were the case, we should be unable to commend any man for having those characteristics; we should only be able to say that he had them.[119]

It is difficult to see how this conclusion follows, for to have those characteristics and what they entail, namely moral goodness, are different things; to call such a person good may well mean that we commend him. It is also not clear why Hare calls this naturalism. It seems to be due to a misunderstanding of G. E. Moore. According to Hare,

> a natural response to the discovery that 'good' behaves as it does, is to suspect that there is a set of characteristics which together entail a thing being good and to set out to discover what these characteristics are. This is the genesis of that group of ethical theories which Professor Moore calls 'naturalist.'[120]

This is Moore's understanding of the naturalistic fallacy only if by "a set" is meant one specific set.[121] The entailment of goodness by *any* set of characteristics not only is *not* the naturalistic fallacy, but, on the contrary, is precisely that determination of good that Moore himself came to hold at the end of his long struggle with this term and professed to have always held.[122] Hare himself cannot leave

> the judgement that a man is morally good... logically independent of the judgement that he has certain other characteristics which we may call virtues or good-making characteristics; there is a relation between them, although it is not one of entailment or of identity of meaning.[123]

What then is it? "It is that a statement of the characteristics of the man (the minor or factual premise) *together with* a specification of a standard for judging men morally (the major premise), entails a moral judgment upon him."[124]

This sounds suspiciously like the alchemistic definitions we have met before—the faculty of sleeping is the dormitive capacity—unless there is in Hare a norm by which to determine what is a "moral standard." But there is none. Moral standards are like any standards used for commendation, and what such standards are is difficult to see. In formal axiology, the standards for any value judgment are the intentional meanings of the thing valued, the set of descriptive predicates in its concept. This is in accordance with the definition given in the *Oxford English Dictionary*: "*Intension. Logic*. The internal *quantity* or content of a notion or concept, the *sum* of the attributes contained in it; the *number* of qualities connoted by a term." In the Middle Ages this logical notion was called "virtue." Hence we still have the terms "by virtue of" and "virtual." In Hare, this is the set of descriptive predicates, which does *not* entail goodness, whereas the set of virtues or good-making characteristics does. The difference between the two is that the set of good-making properties adds up to the commendation of the thing, while that of descriptive properties merely adds up to the assertion that the thing is what it is.

Moore's naturalistic fallacy, in Hare's interpretation, means that identifying the value property with the set of descriptive properties would prevent the commendation of the thing valued. This interpretation is nonsense. For Moore, as we saw in Chapter Three, "good" is to be the fundamental term of the science of ethics. He was not clear what he meant by science, but he certainly did not mean that it was to be a science of commendations! In the light of the Moorean vision of a science of ethics, Hare's "meaning of 'good'"—commendation—appears no more pertinent to the nature of Good than the obvious but irrelevant properties alchemists regarded as the meaning of gold—yellowness, brilliance, and the like. Hare's is an alchemical procedure that builds an acutely elaborated conceptual apparatus on a foundation of secondary rather than primary features of the phenomenon. The reason is his profound misunderstanding of Moore.

Is there, Hare asks, "any characteristic or group of characteristics which is related to the characteristic of being good in the same way as the angle—measurements of figures—are related to their rectangulatity?"[125] According to Hare, Moore thought that he could prove that there are no such defining characteristics of the word "good."[126] Actually, Moore not only accepted a set of descriptive characteristics on which goodness depends, he even held that goodness follows from this set by logical necessity. The naturalistic fallacy is, precisely, to hold open this possibility; it prohibits *one* descriptive (or non-descriptive) property to define good. But that sets of descriptive properties determine goodness, and do so by logical necessity, Moore not only did not deny but professed.

What Moore joined, Hare tries to sunder. He recognizes sets of descriptive characteristics (meanings) that do *not* entail good as commendatory, but only as informative ("doog"), and sets of virtues or good-making characteristics (standards[127]) that do. The list of virtues or good-making characteristics belongs to *a good x,* whereas the list of descriptive characteristics belongs to *an x*. The first lists the standard, the second the description. The standard is the set in virtue of which we describe the thing. When we use the standard as the descriptive set it loses its commendative or standard meaning; when we use the description as standard it loses its descriptive meaning. The interaction of standard and description shows up the dependence of valuation on value language; but no logic covers the two uses, or at least, the logic of the one is not that of the other.

> Moral standards have many of the features to be found in other value standards. 'Good,' as used in morals, has a descriptive and an evaluative meaning, and the latter is primary. To know the descriptive meaning is to know by what standards the speaker is judging, such as the standard of a parson who says a girl is a good girl.[128]

In saying so, the parson does not simply mean that she has the descriptive characteristics. He also means to commend her for having them; and this part of his meaning is primary, just as in the example of the motor car whose "relevant particulars are its

virtues—those of its characteristics for which I was commending it, or which I was calling good about it."[129] But no norms for moral goodness exist; and anybody may set up any kind of standard as moral, Hitler, Stalin, or Lyndon Johnson.

While an axiology must be formal when it deals with Value in general, it must be particular when it deals with specific values, such as the moral; and it must set up definitions of these values that determine them univocally as ethical, aesthetical, religious, and so on. This Hare's axiology is unable to do. Commendation is too frail a reed to carry so heavy a burden. Formal axiology, by keeping joined what Moore regarded somehow as joined—in Hare's terms, by identifying "doog" and "good"—is in the position to use the true logic of meaning rather than the pseudo-logic of commendation, and thus to make the system of logic itself available for ethics.

The ethics of formal axiology is existential ethics. Persons are morally good in the degree that they are true to themselves (sincere, authentic, and the like). A person is defined as a being that has its own definition of itself within itself. This definition, in every case, is "I am I." fulfilling this definition means *being* oneself. Moral and non-moral good have the same logical feature of fulfilling an intension. But the application of this feature is fundamentally different in ethics and in axiology.

Stuart Hampshire remedies the vital flaw in Hare's theory.

> A philosophy that represents the word 'good' as simply an adjective of praise and commendation and that sharply distinguishes praise and commendation from informative speech, suggests that the acknowledgment of a power or habit as a virtue is simply a willful act of praise or commendation.[130]

Hampshire re-joins standard with concept; unfortunately, the Oxford bias reappears with him in a different form; "concept" is considered in contextual terms, which robs it of its logical power. Hampshire's theory is not developed, but the fundamental identification of concept and standard is important for axiology. A theory similar to Hampshire's in some fundamental aspects has been developed by F. E Sparshott.

Identification of unconnected terms is often an important act of discovery. The transition from analysis to synthesis—analysis either in the form of a philosophy or a set of observations in the sense of Galileo and Newton—often proceeds by the identification of some features originally regarded as separate. Such identification is sometimes a dramatic intellectual event, as it was when Kepler identified what had stymied him by its separation, the librations of Mars and its elliptic course. Similarly, Moore originally held the set of descriptive properties and the value property strictly apart, only to approach them to one another to the point of entailment. Hare keeps the descriptive set and the set of standards apart. Hampshire does not really *identify* the value property and the set of descriptive properties of the concept since he does not discuss their logical separation, as had Moore; he only *calls* a concept a standard without awareness of the far-reaching importance of this identification.

Hampshire begins his discussion of "good" with relations such as "same" and "similar" that cannot be understood apart from a particular system of classification.

> 'Same church' and 'same building' have a sense that is specified by the sense of the *concept* of a church and of the *concept* of a building....The criterion of identity for churches is part of the sense of the concept of a church; the criterion of identity for buildings is part of the sense of the concept of a building.[131]

In terms of logic, this means that the word "same"—when applied in the sense Hampshire mentions—indicates class membership. But logic is not a usable instrument for Hampshire. He calls words like "same," "similar," "exist," "true," "certain," and so on "organizing notions in language that systematically vary in the conditions of their application, depending on the type of expression with which they are combined."[132] I would simply say that they are logical relations. Goodness is "such a kind of general and unrestricted notion" even though, according to Hampshire, it is not quite as general and unrestricted as the five mentioned. It is, in my sense, a syncategorematic term. Hampshire says as much, but in his Oxford accent; it is a necessary concomitant or corollary to using concepts. Such use is at the same time normative: "Anyone who applies concepts necessarily applies also the distinction between a standard or normal case of something falling under a concept and an abnormal or imperfect case. He cannot avoid making this comparison."[133] In other words, conceptualization means standardization or normalization,[134] and this means determination of abnormal or imperfect cases.

> The comparison and ordering of specimens as more or less imperfect specimens of a kind is as unavoidable as the comparison and ordering of statements as more or less certain....We could not apply concepts to our experience without making this kind of comparison. We necessarily have the idea of more or less a so-and-so as part of the procedure of classification itself, and therefore as intrinsic to any use of language in thought and in speech.[135]

In other words, valuation and its norms belong to the very nature of human rationality. The structure of thought, logic, must therefore be the structure of value. The difference between Hampshire and formal axiology is only as to the nature of logic. If Hampshire had the formal view of logic he would have to continue: classification is symbolized in the relation $\in$; this is one of the three primitive relations of logic;[136] identification of this relation with value is the axiomatic identification that gives rise to a science of value. This kind of argument is foreign to Hampshire; yet he goes about as far in acknowledging the rationality of valuation as is possible for a person of his intellectual lineage. Value criteria are not arbitrary. The criteria, say, of judges at a flower show,

> will be directly or indirectly based on the distinguishing characteristics of the species, and on the part that it plays in human life. The basis of the criteria of comparison will be the degree of development of the distinguishing features of the species: in general, the more the distinguishing features of the species are developed, the better the specimen is as a specimen of its kind.[137]

This means, in axiological terms, that the more differentiated the axiometric intension of a thing, the better such a thing it is. Hampshire in this connection even hints at the difference between systemic and extrinsic value in drawing attention to the difference between the vocabulary of scientific inquiry and that of common sense language.[138] He also discusses the nature of agreement and disagreement as difference in the conceptualization of the subject in question.[139]

Hampshire makes the transition from his general axiological considerations to those of ethics by means of the concept of "man." What is the axiological distinction between a good engineer, writer, or politician, and a good man? What constitutes being a good man, and how is being a good engineer, writer, or politician related to being a good man?[140] Formal axiology finds this distinction to be that between extrinsic and intrinsic value. It first defines, formally, these two kinds of value and then applies them to humankind. The application of extrinsic value yields good engineers, writers, or politicians, and that of intrinsic value good men or persons in the moral sense. Hampshire sees that everything depends on the definition of "man," and that a good man is different from the *roles* a man is playing.[141] But he is not able to find a definition of "man" that will lead him on to ethics, both general and concrete. Here again the analytic procedure breaks down, and the leap to the synthetic procedure, leading to synthetic *a priori* judgments of an applied formal system, is not taken. All that Hampshire can give is a program; it is, he says, the constructive work of a philosophy of mind to provide a set of terms in which ultimate judgments of value can be clearly stated.

Hampshire's mistake is one of confusing levels of value language, the moral fallacy. He takes the concept of "man" as the starting point of his discussions.[142] If he were discussing ethics, this would be correct—even though without an axiology no valid ethics is possible. But Hampshire seems to be discussing axiology.

> It may still be objected that there is no logical necessity that we should take the notion of a good man as the starting point in any discussion of that which is supremely valuable, and of the order of priority of human virtues: or even that the concept of virtue should be the starting point of discussion.[143]

This confuses the axiological with the moral frame of reference. A discussion of that which is supremely valuable is an axiological discussion, but a discussion of the order of priority of human virtues is a moral one. Even the concept of virtue in Hare's sense would be an axiological rather than an ethical concept. It may be argued, Hampshire continues,

> that there would be no logical contradiction in maintaining that the absolute value of art or science or philosophy is not to be derived from the excellence of men as men but rather that the reverse is true. Anyone who accepts such a philosophy can be expected to explain why art or science or philosophy are in themselves of supreme worth *apart* from their relation to human beings.[144]

Hampshire does not find this possible because at bottom his view of classification is anthropocentric.

> The distinctions that are marked in the vocabulary of any language are the distinctions recognized by men. 'A good so and so' is a form of phrase that derives its sense from some grounds of classification chosen by men for their own purposes, and from the criterion of value that is more or less directly derived from these grounds of classifications.[145]

True, but the grounds of classification are *logically irrelevant*. From the point of view of logical apprehension of valuation, Hampshire commits the fallacy characterized by Theodor Lessing:

> He who confuses the study of the object value with the study of the concrete valuable objects or even with the study of the acts of valuational attitudes is in the position of a man who assigns the study of arithmetic to the to botanists because he learned to count with apples and nuts, or who confuses higher mathematics with the psychology of counting because there would be no theory of numbers without people who know how to count.[146]

Taking classifications for classes, and valuations for values, commits the fallacy of method. Says Hampshire,

> However resolutely we may try, as philosophers, to separate judgments of value from any limiting human interests we can never altogether succeed. The human interests are included in the formation of the concepts to which the evaluative epithets are attached.[147]

Logic is a function of the human situation, and so are valuations; from this it follows that there is no difference between the ethicist and the agent in the situation—the fallacy of method again, as we found it criticized by Hall. For this reason, a purely axiological point of view such as G. E. Moore's, who sees the basis of ethics in the word good as axiomatic for a *science* of ethics normative for casuistry, is not acceptable to Hampshire. "Any philosophical characterization of the word 'good' suggests a procedure by which we are to decide whether judgments of the goodness of something are to be accepted or rejected."[148] But such acceptance and rejection in the light of a philosophical analysis of "good" is very different from an acceptance and

rejection in the light of a *science* of good. Philosophically, the judgments in question are analytic or synthetic; scientifically, they are synthetic *a priori*. Philosophically, the reasons for their acceptance or rejection are based on the analytic meaning of the subject and the predicate. In axiological science, they are based on the system *a priori* developed from the axiomatic meaning given to "good" and the consequent application of the system. Hampshire says rightly that

> those who like G. E. Moore have claimed to discriminate with final certainty as if by the inner eye of the mind, that which is intrinsically good, have to justify their claim that certainty can be attained in this way. There is a theory of knowledge, exposed to the test of internal consistency behind this claim.[149]

This theory of knowledge I tried to give in Chapter Three. Like Blanshard, Hampshire finds Moore's view too vague and abstract, and he is unable to see how a Moorean ethics can be fruitfully applied to casuistry. "The type of moral philosophy that considers only the use of the 'purely moral terms'—*e.g.*, 'right,' 'good,' 'ought' —tends to be...vacuous and uninstructive."[150] Thus, in spite of his clear instinct for the normativity of the concept, and thus the fundamental insight of formal axiology, Hampshire is frustrated in his endeavor to find a truly rational account of valuation. He is forced to commit a whole cluster of axiological fallacies.

F. E. Sparshott has an even stronger axiological insight, but it too is infected by the Oxford mannerism for obscurity—only Sparshott has real difficulty keeping his analysis of goodness as obscure as his upbringing demands. His good sense breaks through again and again. Sparshott's value theory is at the very borderline of naturalistic and non-naturalistic formal value theories, and the spirit of true axiology blows through it. The themes of axiology are touched, the problems discussed, the phenomena observed. Not the pseudo-naturalistic dress of Sparshott's "formula" makes the theory ultimately fail at precisely the point that counts, namely ethics, but the Oxford confusion of classification with class—its semantic rather than syntactic nature. The formula is this: "To say that x is good is to say that it is such as to satisfy the wants of the person or persons concerned."[151] This sounds naturalistic, but the author disclaims being a naturalist—and with some reason. He holds Ethics—meaning axiology—to be an autonomous science and not a department or application of one or more of the natural or historical sciences (as C. D. Broad held naturalistic ethics to be).[152]

Sparshott would be a cognitive non-naturalistic formalist if, instead of "wants," his formula said the "intention," "disposition," or "nature" of the persons concerned, and if "person" were defined in terms of the analysis of "good"—something no axiology so far has achieved. But Sparshott intended to say "wants," meant objectively, not subjectively. Wants are not desires but needs, in the sense that "a mentally defective person is said to be 'wanting' and a poor person to be 'in want,' though they may have no desire to be clever or rich," or a child who desires a chock-ice is told by his mother that what it wants is a good hiding. "She may... be considering the state

of the child as dispassionately as the mechanic who says 'it wants a new clutch sleeve.'"[153] "A person who speaks of 'the' wants usually has at the back of his mind a special set, and simply ignores the possibility that there might be others."[154]

A person's set of wants is the norm a thing's or person's goodness is to fulfill. But Sparshott does not see the fundamental difference, in the case of persons, between fulfilling others' and fulfilling one's own "wants." Thus he misses the point of departure of axiological ethics. In formal axiology, where the norm for the goodness of *x* is the set of *x*'s predicates, such a confusion is avoided by the very "emptiness" of the formula. Since it has no concrete meaning at all it is in no danger of taking such a meaning as that of "good." It thus does not preclude any meaning and steers clear of the naturalistic fallacy[155] and of the danger of committing a fallacy by defining prematurely.[156] While the objective interpretation of "wants" *may* save Sparshott from committing the naturalistic fallacy, the formulation does not save him from the confusion of not distinguishing between the satisfaction of the person's own wants and that of others' wants for the person—in the case of the mother and child, of the child's satisfaction of what it "wants" and the mother's of what she wants for it. As a result, Sparshott's ethics has a fatal flaw, as will be seen.

Sparshott proceeds with as much logic as his formula allows him, building a theory that permits an acute and spirited discussion of value phenomena. Desires and needs, again objectively rather than subjectively considered, are deficiencies; hence *completeness* becomes a standard—as it is in what we called *axiologia perennis*. "This fact does not mean that goodness is ultimately defined in terms of goodness, since goodness and completeness are different standards and cannot be reduced to terms of each other."[157]

Sparshott endeavors to distinguish goodness from completeness, a fundamental task for any axiology. In formal axiology this solved in a logical manner. A car is a vehicle that has the minimum (definitional) attributes of a car, but a *good* car is one that has *all* its expositional attributes. The full exposition of a thing is its standard. Name equals norm. The judgment that something needs something "can be made only with reference to a standard....The very notion of a standard implies applicability to all things of a certain class indifferently. Completeness or perfection often has an objective ground."[158] Such a standard can easily be called a natural norm, though not always, for, according to Sparshott, agreement on the standard is necessary.

Here the Oxford root of this theory comes through and does not allow him to unfold the logical notion of standard, the intension of the thing judged. Although his theory is incomparably better developed than Hampshire's, it suffers from the same fundamental deficiency: it sees classes not as logical but as sociological, and insofar the theory is profoundly "wanting." A standard, he says, "cannot be used to judge a thing by unless it is commonly accepted, or at least set up without special reference to the particular deficient thing."[159] Conceptual meanings are such standards, set up by language for classes of things. Unfortunately, Sparshott, like Hampshire, stays in the environment of contextual classification and does not rise to the logic of classes.

Thus his "standard" stays empirical and dependent as much on human whims as on human wants.

> Assertions of goodness share with other attributions of qualities to things that they are reducible to statements about the effects of the thing on other things or people, or its interactions with them; while the very fact that a quality is attributed implies that such effects or interactions are assigned to some feature of the thing itself, although nothing is implied about what this feature may be. In calling something good we are talking about the thing itself—not about ourselves, and not about society....If we speak of its effects we speak of the effects it has as being what it is, and if our feelings are relevant they are the feelings aroused by the thing's being what it is.[160]

Here Sparshott attempts to break out of the Oxford context; the thing is what is good and not anything else. But the contextual leash, although longer in Sparshott's than in Hampshire's case, is equally strong. Every linguistic usage and every grammatical form, we are told,

> were brought into being to serve some purpose of their users, and have remained in existence because they have continued to serve that purpose or have come to serve some other. The most important thing about any feature of language therefore is its function, and not its form or what one might be led from a consideration of its form to suppose its function to be.[161]

Had Sparshott considered the form rather than the function of language he would undoubtedly have come to the notion of a formal axiology. But he does not feel at home in abstraction. "Good" may have an independent life, but it is beyond the reach of analysis. The abundance of the concrete is alive and profound, abstraction is empty and facile. Sameness of meaning is the result of superficial interpretation. "Good" is not a homonym as it was for Aristotle. On the contrary, "Aristotle has been brought to this pessimistic conclusion by confusing (as so many people do) the meaning of 'good' with the criteria for its application to certain types of situations."[162]

"Good" has a single use, if not a single meaning, and Sparshott sets out to discover this use and set it down in a formula. This is what he means by analysis. Actually, it is a truly Cartesian endeavor, but he hedges it on all sides against this offending interpretation.

> It would be agreeable to have a single formula with the aid of which all sentences in which the word 'good' occurs might be paraphrased—some concise reply to the question, 'What do I mean by good?' The central purpose of this book is simply to present such a formula.[163]

This search is not the quest for the *nature* of something that has been seen with the eye of the soul, the rationalistic and Moorean quest. There may be nothing common to all meanings of the word "good;" yet one thing *is* in common to all occasions in which it is used, the word itself.[164] A single formula then would reveal a root of meaning in the variety of uses. Though Sparshott makes sure that his search for a formula is not interpreted as a search for insight, the search for a formula, no matter how hedged in by an Oxford fence, is still a Cartesian enterprise. Sparshott even gives it a Kantian twist: the formula must be invented, not discovered.[165] To make sure not to give the impression that he might be in the tradition of philosophy or even science, Sparshott maintains that what is of value is not the formula itself but the whole discussion of which it forms the theme. The formula is not the reduction of the preceding analysis, a Cartesian "simple"; but the analysis cannot be forgotten or thrown away, and no system possibly built on it.

Sparshott's formula is not a use formula, for it may be

> that, when we have discovered 'how a word is used,' we shall still need to discover 'what it means' in order to explain *why* it is used as it is. The present discussion will be carried out in terms of meaning rather than use; but the term 'meaning' will not be defined.[166]

Again, Sparshott breaks off the enquiry before it bears real fruit. Had he defined meaning in the logical manner, he would have come to the meaning of "good" as a variable. He asks, "Is Analysis a Good Thing?"[167] but fails to answer in terms of his formula, namely by stating whether or what analysis satisfies the wants of the person or persons concerned. Neither does he discuss the "value" of his formula in its own terms. He does not want to abandon "meaning," just because philosophers have discovered its serious ambiguities, in favor of "use," which is equally ambiguous.

> This would be like abandoning a navigation channel as too dangerous just when all its shoals had been charted and its rocks marked with buoys, in favor of a channel in which the maps marked no hazards because it had never been charted at all.[168]

But having salvaged meaning he makes no use of it. It remains undefined and indefinite. It conveys neither rigor nor precision, either to the formula or its subject, goodness. All "formulae, except those for technical terms are certain to simplify and to falsify. They sacrifice the philosophical excellences of rigor, accuracy, and scrupulousness."[169] These are scientific rather than philosophical virtues. They would be the virtues of a value theory in which good is defined *as a technical term*—just as today's "technical terms" were once vague philosophical concepts. The philosophical virtues, we may say, are precisely what Sparshott

calls his formula—aesthetic and pragmatic: "'accuracy' is crispness of speech; 'scrupulosity' is answering every question which the author sees fit to raise; 'rigor' is leaving nothing within those answers to the reader's imagination or common sense."[170] The aesthetic value of this watering down of precision is doubtful. It may be held with better reason that the aestheticness of science is far greater than that of philosophy. In any case, no definition of "good" is possible as a technical term unless its primary qualities are discovered; the characteristics of "good" in Sparshott's formula are vague secondary qualities.

Hence not only is "good" vaguely determined—though with crispness, and such—but its choice as the subject of the axiological formula is itself somewhat arbitrary. Sparshott is very careful not to say that he chose the word "good" because, as Moore says, it is the fundamental term of ethics and thus would be part of the axiom of a *science* of ethics. Far from it. He chose the word as a "Philosopher's dummy." What is said of it can be regarded as a contribution to ethics only because it can be applied *mutatis mutandis* to other words such as "brave," "hospitable," "conscientious," "honest," and "heroic," which are without doubt ethical words. This means that "good" is an axiological word, a variable applicable to the specific values, in the logical sense, that these words represent and the specific value sciences to which they belong.[171]

Sparshott is careful not to say that goodness is a quality different from, say, yellow. Every exactness is avoided by him, as it is by Nowell-Smith, with the fundamental difference, though, that this almost desperate blurring of distinctions is against Sparshott's nature; but it is fully in the nature of Nowell-Smith. Sparshott's nature is for clear thinking and clear distinctions. His value theory is in the Oxford pattern *malgre soi*. It tries on sides to break out of the pattern. Wherein, he asks, lies the difference between goodness and a quality such as yellowness? "In the fact that one does not argue about whether anything is yellow or not, but one does argue about whether it is good or not? Nearly, but not quite."[172] The difference is not disputability, for the goodness of a good thing is almost as indisputable, as its yellowness.

> What chiefly differentiates goodness from other qualities... is the appropriateness of asking, of anything said to be good, 'What's good about it?' There is a sense in which 'what's yellow about' a thing is constant, and hence yellowness is 'always the same' in a sense in which goodness is not.[173]

All standard qualities are constant, "but there is nothing whatever in common between what makes a good car good and what makes a good apple pie good."[174] We cannot find out what good means by looking at a good thing. Here Sparshott is graspably close to the logical meaning of "good" (in which, of course, he is not interested)—that it is a variable, whereas "yellow" is not. This is precisely what aboutness is about: to be a function of a higher logical order.

The *Oxford English Dictionary* defines "about" as "Abstract connection:...the regular preposition employed to define the subject matter of verbal activity." What goodness is about are the good-making features,[175] and since *any* set of features can be good-making,[176] it is obvious that *that* by virtue of which the features are good-making must be a logical characteristic of the set rather than a material one (which has to do with the meanings or uses of these features). This means that "good," the outcome of the good-making characteristic of the good-making features, cannot be characterized by any material meaning or use, but only by the logical meaning of the characteristic; that good itself is a syncategorematic term.

Since, according to Whitehead-Russell's vicious circle principle, what is about a set is not a part of the set, "good," no matter what the logical order of properties in the set (for example, "intelligent,"[177]) must be of a higher logical order. At the same time, "good" is predicated of the individual or individuals to which the set itself applies. It is thus equivalent to *a totality of properties*, a "single predicate" in terms of the axiom of reducibility. All this follows from Sparshott's account of the aboutness of good or what good is about—if we read it with logical ingenuousness. It is as astonishing as it is frustrating to see an acute axiological thinker state the "chief difference" between goodness and other qualities in such an exact and significant logical term as "about" and give it no meaning. This almost feels like somnambulating through formal axiology.

Almost all the themes of formal axiology are touched in Sparshott's analysis: value terms such as "good at," "good for," "as good as," and comparative goodness—goodness in one class weighted against goodness in another. In what he calls "idioms," Sparshott discusses what I call the very nature of good, the relation between "good" and "real."

> To call something a real *x* is to say that it 'possesses the nature which we claim for it' (the phrase is G. R. G. Mure's) by calling it an *x*. Now clearly if real silk possesses the nature which we claim for it by calling it silk it will pass the tests for silk and meet the standards for silk and will thus be such as to provide a certain minimum satisfaction for the needs and desires of people who are interested in silk.[178]

Here we see the Oxfordian distortion of meaning. Obviously, real silk fulfills the intension of the concept silk, no matter whether or whom it satisfies. Sparshott continues, all good silk is real silk (this is the axiom of formal axiology); but, he continues, not all real silk is good silk, though it is better than no silk at all. For, Sparshott feels, "good" refers to quality while "real" refers to quantity. "It is not surprising, therefore, that when 'good' refers to quantity or intensity rather than quality it may often be replaced without change of meaning by 'real'."[179]

However, intensity is not quantity; it is quantity applied to quality. I could refer here to Kant but prefer a source more authoritative for the Oxford philosopher, the *Oxford English Dictionary*: "*Intensity*. The quality of being intense; a strained or very high degree (of a quality, condition, or action, or of the characteristic quality of something)." No wonder Sparshott finds no real difference, no good distinction, between "good" and "real." "There is not much to choose between a good hiding, a real hiding, and a real good hiding."[180] In some languages, such as Hindu, the words for "real" and "good" are the same. What is true of the hiding—an example Sparshott is fond of—is true of anything. There is no distinction between anything's being good, real, or real good. Sparshott states the reason: the notion of *completeness*.[181] Words like "good" and "real" express the completeness with which a thing fulfills its meaning. Completeness is the etymological meaning of "good" in almost all languages; for example, Greek *agathos* ("gather together," "fit together") from which comes good, *gut*, and such; Russian *dobryi* ("fitting"), Chinese *liang* (complete, full). Sparshott misunderstands these meanings of "good" as extensional rather than intensional.[182] Yet, he puts this use—in which is hidden the whole *axiologia perennis*—in the same "glossary" with all the other uses, and the result is a very limited order and enlightenment. The reason is that use is no ordering principle. Ordering means priority and posteriority of data, and this means selection of the primary ordering item. This item, if it is to order *all* the rest, must be of a higher order—in the logical sense—than the rest. Hence, within usages no one usage can be an ordering item in this systematic sense. This is equivalent to saying that within analytic concepts, no analytic concept can be an ordering concept.[183] For this reason, the use Sparshott selects for his formula leaves out a great many "special senses" of good, and in this sense his axiology is limited by its analytic nature.

This limitation becomes glaring in the discussion of moral good. A good man is one who satisfies the wants of the persons concerned, the "connoisseurs," those of his in-group or we-group.[184] A dismal consequence of this approach is that Hitler was a good man because he satisfied the wants of his gang. Sparshott, in the light of his formula, is unable to avoid this conclusion, and the remarks he makes in this connection either do not avoid the conclusion or do not follow from the formula.[185] The theory thus falls down badly in the notion of moral goodness, and the author seems to be aware of this.[186]

The upshot of Sparshott's analysis is that

> 'good' is used in many different ways, some of which are so distinct from the rest that they may be called 'special senses' of the word [such as the ethical]. For this reason, any unexpanded statement of the form 'good means...' or 'goodness is...' must be downright misleading. But these many uses are related to each other in intelligible and quite simple ways, all of which are either reducible to, or explicable in, terms of the 'formula'....

> For this reason, it is incorrect to say that 'good' is equivocal and that the attempt at analysis must fail.[187]

This is as far as analysis can go in the Oxford sense, and it is very far indeed—if, that is, Sparshott can be said to belong to this school. His connection with it, though definite, is thin. He stretches the word that ties him to it to the breaking point. If he wants to develop his theory further he has to break it. Only a synthetic concept of "good," in the sense defined in Chapter Three, can originate a value system that is infinitely refineable. Like Hilliard, Sparshott has developed an analytic concept and elaborated it by his ingenuity rather than the aptness of the concept. Though half-heartedly he makes use of the Wittgensteinian notion of use, he does not confuse it with meaning. Therefore, the criticism directed against the Oxford school does not apply to him. Indeed, if we take, as we legitimately may, the application of this criticism as a criterion for belonging to this school, Sparshott does not belong to it. He has transcended it and stands, as I said, at the borderline between formalist semi-cognitivism and cognitivism.

The semi-cognitivist position of the Oxford school has met with severe, and in some cases definitive, criticism. It is, the critics hold, ethically inarticulate and logically inaccurate. Its word games are practically irrelevant, and its stopping inquiry at the descriptional level is logically illegitimate. Langmead Casserley[188] agrees with the Oxford School's bias against definition but for the opposite reason: *insofar as definition is too narrow.* He sees the solution in the widening of definition to encompass the whole of value reality—as was the case in the middle ages and in classical thought—rather than in a retreat to the meanings of trivial contexts. Missing in ethical theory is a relevant application to moral reality, the reason being that ethics is based on a too narrow axiology. Most modern systems of ethical theory are what Casserley calls "single clue" systems, in which some one sovereign conception—such as pleasure, utility, the so-called moral sense, evolution, or biological efficiency—is used to interpret the whole range of moral experience. A drastic oversimplification of this kind not only represents a falling away from the comprehensiveness and realism of medieval ethical theory, but is also inferior in all these respects to the best classical thought. Ethics in the traditional sense has become the victim of fragmentary relativistic views.

> The real bias of the contemporary attitude towards ethics is expressed in empirical social relativism, in the *a priori* relativism of the logical positivists, and in what might be called the realistic, metaphysical relativism of the existentialists. From any one of these three diverse points of view ethical theory in the conventional sense appears to be so much pointless nonsense.[189]

Unfortunately, Casserley fails to follow up his correct analysis with the correct solution. He does not see the *formal* nature of the problem: the fragmentation of ethical doctrines cannot be overcome by another such doctrine but only by a higher level of ethical language. He attacks the problem materially rather than formally, and this is all the more unfortunate because in this way he founders on the very rock that has wrecked so much of traditional ethics: the logical difficulty of accounting for the individual human person. Only a higher-level ethical language, a formal axiology, can solve this problem.

Casserley's solution is religious metaphysics—whose greatness and relevance, he says, the middle-ages demonstrated. The fundamental fact of ethics is the value of humankind, and this value cannot be given in secular but only in religious thought. Religious thought at its narrowest inevitably turns out to be broader than secular thought at its broadest. Secular thought oversimplifies the problem of humankind and glosses over the existential character of human existence. Humanity is not an abstraction but is the whole depth and breadth and length and height of human experience in and through a single personality. People are not sociological beings, but existential and metaphysical beings. Their value is uniqueness.

Langmead Casserley's discussion culminates in a repetition of the distinction between *Naturwissenschaften* and *Geisteswissenschaften*; it asks for an analysis of the relations between science and scientific generalization versus history and personal life. The uniqueness of human beings can be scientifically studied, but the author is not aware of the methodological import of his solution, the requirement of a formal, synthetic understanding of uniqueness. The material, analytic nature of the disciplines—history, metaphysics, theology—he entrusts with the solution does not fulfill the requirement. Hence, the "greatness and relevance" of medieval metaphysics for the valuation of human beings is merely abstract; it did not prevent the atrocities that were the regular entertainment of medievals, especially those whose profession was the study of religious metaphysics and theology.[190] Casserley's and other's idealistic view of the middle ages ("the medieval period was indeed a great and wise epoch in the development of our culture"[191]) is due to taking medieval writings at face value and not understanding them axio-methodologically, as merely analytic developments of implicative thought, whose relevance to the life of individual persons was irrational. These writings aggravated as much as softened medieval life. Their relevance to the medieval reader was more often the tortures of hell than the delights of heaven. These writings are lovely to read now just because of their present irrelevance; their relevance to the medieval reader could only mean rack and pyre. Medieval ethics was more complex and penetrated more throughout society than modern ethics—and in this Casserley is right—but this influence was more harmful than helpful to the valuation of human persons. They were persons only within the theological system, but not by virtue of their being what

they were. Within this system an accident could change a person from a child of God into one of the Devil, with all its dire consequences.

The combination of often acute criticism with a lack of positive solutions is found in all criticisms of contemporary ethics, for these criticisms are themselves contemporary ethics, and analytic rather than synthetic. While Casserley tries to overcome semi-cognitivist relativism with a kind of metaphysical objectivism, other proposals are for moral, epistemological, and various kinds of logical objectivism.

Eric Gilman[192] pleads for moral objectivity in the sense of self-criticism and detachment, and he distinguishes it from rightness. We may be morally objective and yet wrong. D. B. Terrell emphasizes the objectivity and singular character of moral rules. In making moral decisions we must strive after

> reasons serviceable for anyone, whatever his personal inclinations....A peculiar ethical decision, it seems to me, is one which is based upon a reason, which is peculiarly ethical, and the important contention of the objectivist ethical theory is that there are such reasons, and hence, particularly ethical decisions.[193]

The question is only what they are.[194] Glenn Negley[195] argues for epistemological objectivity. The fundamental data of moral experience have erroneously been regarded as subjective conditions of feeling, unique and private, incommunicable, and hence not describable in any conceivable language. Thus, ethics, by faulty observation of its subject matter, renders itself impotent to communicate and becomes contorted into an exercise in epistemology. As is held by Rudolf Allers,[196] the privacy and uniqueness of a subject matter does not necessarily imply lack of communication in the theory that deals with it. The experience of color is unique and private, but this did not hinder the physicists in developing spectroscopy. Even if values are the kind of experiences the emotivists and intuitionists hold they are, an objective elaborate science of axiology could be developed.

E. A. Gellner delves deeper into the logic of ethical reasons, employing a traditional kind of logic. The Oxford analysis is inadequate, for its conclusions cannot be less accidental than its material, which is ordinary language.

> The analysis of the German word '*schimmel*' is 'horse' and 'white' but there is no necessity for a language to contain such a word—indeed English doesn't. Some 'analyses of ethics' make the answer sound similarly accidental. But this simply won't do, for the question concerning the correct analysis of ethical statements is itself ethical; by which I mean, that when we ask it, we wish to know not how the inhabitants of Huddersfield or Bongo Bongo use them, but how they should.[197]

When people act they are prepared to give reasons for their actions. These reasons have a logical form; they are either universal or singular judgments, singular if some unique person or event is referred to as ground of the action, as in love. Two, and only two, logical kinds of justification of action are available—those that employ descriptions and thus constitute open rules (U-type), and those that contain logically proper names and thus are not open (E-type). Ethical theories have been built around this distinction, to the effect that we should act in such a way that our possible justifications should be of one or the other kind. The first kind of ethics (U-type) is Kantian Essentalism, the second (E-type) Existentialism. Both ethics are operative, but both are inadequate. The question is: By what standard, external to both, could we choose between them? Since both are types of logic, the standard ought to be a supervening logic—a consequence of his argument Gellner does not draw.

Formal axiology *is* this supervening logic; it defines intrinsic value similar to Gellner's E-type, and extrinsic and systemic value similar to his U-type. Moral value, being intrinsic, is of the E-type.[198] This conclusion is opposed to Hare's, for whom moral valuations are of the U-type.[199] This is due not so much to moral blindness as to lack of logical distinction. For Hare, there is no logical difference between a judgment about good chronometers and one about good persons; both commend. The vague analytic nature of his definition of good, as commending, does not enable him to analyze goodness *logically* into extrinsic and intrinsic value, and to develop the logics corresponding to these two kinds of value. His ethics is thus inarticulate, and his intuition does not help him overcome the shortcoming of his lack of articulation. His explanation for our usual impression of the greater importance of moral judgments is both unconvincing and shallow: that we are people and not chronometers.[200] This explanation is based on the premise that what concerns us more appears to us more valuable—but the logical connection between concern and commending is not given. The "explanation" has the typical *ad hoc* character of analytic attempts, as against the necessary character of synthetic solutions.

Such solutions, we have seen, the semi-cognitivist school rejects on principle. As Everett W. Hall[201] pointed out, it substitutes pragmatic reasons for practical Reason. It thus puts a quasi-naturalism in the place of Kant's non-naturalism and offers no solution to the present deadlock in ethics; "it furnishes no *via media* between naturalism and non-naturalism." This *via media* is possible only by the formal interpretation of non-naturalism. It is not so much a middle way as a super-highway, overarching and superseding all the problems of the dichotomy; it is synthetic as against analytic procedure, a value language constructed on a higher logical level than ordinary language.

Insisting on ordinary language not only produces methodological inconsistencies, as does the *ad hoc* argument just mentioned, but also leads to a logical fallacy, that of confusing content and method, *use* and *mention* of value language, as Hall makes quite clear. The agent in the moral situation *uses* value

language, the philosopher of value *mentions* it. The philosopher of value is not the agent of value, nor conversely, the agent of value the philosopher of value. Hence, while ordinary language must be used in the moral situation, no such language need be used in the metalanguage of the moral philosopher dealing with or mentioning the lower order language. This distinction largely invalidates the Oxford disclaimer against definition. The language of the Oxford school is a pragmatic metalanguage, that of philosophical ethics a semantic one. The philosopher of ethics is *as philosopher*, not a part of the situation he discusses. Hampshire,[202] for example, supposes the possible contexts of ethical debate are two: *ex post facto* moral praise or blame, and coming to a moral decision. Both of these, says Hall, "are everyday practical moral situations, they are not the context of philosophical discussion." They are its subject matter. Unfortunately, Hall disregards this fundamental distinction in his own work.

While Hall attacks the semi-cognitivist aspect of the good-reason school—the retail character of its "reasons"—Abraham Edel and D. H. Monro attack its non-cognitivist aspect. Edel[203] makes the same logical point as Hall: We must distinguish between the *act* of deciding and the *cognitive content* of the decision. Hart, according to Edel,[204] confuses these two as, according to Hall, do Toulmin and Hampshire: "That the role of judicial theory is to guide decision need not entail that it is any less theoretical. (The control motivation of physics does not imply a control reference in analyzing 'motion' or 'energy.')"[205] A theoretical component exists in ethics as in natural science, and it is by no means clear that "it is the distinguishing characteristic of practical judgments that they have a prescriptive or quasi-imperative force as part of their meaning," as Hampshire claims.

> Moral judgments can be and have been formulated in such a way that the prescriptive element is part of the phenomena designated. A cognitivist approach, whether naturalistic or nonnaturalistic, therefore, cannot be accused of leaving prescription out. In ethical theory, I think we are approaching the point where we will reinstate as the primary context in which one receives guidance that in which one *learns* or *comes to see clearly*. For it is a simple fact that when men are helped to see clearly what the consequences of their action will be and what they will want in the subsequent conditions, then they have received guidance.[206]

Edel is still very far from seeing that the theoretical component of ethics requires formal elaboration, as did that of science, and that once this elaboration is accomplished, moral action must follow as the *method* inherent in the very science. At least he sees the theoretical component and its logical nature. The endeavor of the Oxford School to establish a new "logic,"

> to introduce new validity models in ethical theory, rests either on too hastily accepted assumptions that the established models are unavailable, or a premature pessimism concerning the growth of the human sciences, or a narrow conception of the practical which ignores the thoroughly practical efficacy of cognition and reflection.[207]

Unfortunately, Edel himself does not follow up this insight *methodologically* and make clear the synthetic nature of scientific knowledge and its logical consequence of *method.* What he says is analytically but not synthetically precise nor founded. Whereas the Oxford School goes against the scientific method, in an empiricism that is so naive as to falsify the enterprise of knowledge, Edel goes *with* this method, in an empiricism sophisticated enough to point to its formal supplement. This very empiricism does, up to a point, agree with the philosophy it criticizes.

The naively empirical view of knowledge of the Oxford School is the subject of D. H. Monro's criticism. He stresses the fundamental difference between moral and other decision situations and shows that the axio-empirical method of the Oxford School, based on the naive analogy between ethics and empirical science, breaks down. "We cannot simply by examining the way in which people behave or the reasons which they regard as justifying their behavior, arrive at the concept of a [moral] way of life."[208] This would consist "of principles which conform to certain formal criteria, *viz.* principles which are consistently followed, universally applicable,...and mutually consistent."[209] Such a concept, contrary to what Toulmin says,

> does stand in need of justification, since it is neither universally accepted in practice nor universally defended in theory; and it is possible to use the words: 'good' and 'ought' without implying such a concept. Nor can we justify this concept by appealing to the function of moral principles, whether we take this to be making it possible for man to co-operate, or simply making it possible to learn and teach habits.[210]

Again, Monro does not go far enough and state that the principles in question, if they are to be morally efficient, must form a synthetic system and must not consist of analytic commonplaces. Nor does he say what is obvious, that the best way to "justify" the concept of such a system would be to create the system.

H. P. Rickman[211] not only agrees with Monro on the necessity for an ethical system but attacks the "strenuous avoidance of any systematic approach" of the Oxford School, which leads to "diffuse and piecemeal linguistic analysis," "meandering discursiveness, the collection of trivial anecdotes and the random mixing of linguistic, psychological, and sociological reflections leading to no clear conclusions." Required is a positive and systematic approach squarely placed within the framework of a general theory of language. Resigning our-

selves to the irreducible variety and complexity of moral statements "can lead only to obscurantism." If we speak of such statements at all as belonging to a class, we should expect the class to have a connotation.

The unique characterization of moral principles was given by Kant. Ordinary moral statements in concrete situations—the crux of the matter—are applications of a moral principle to concrete situations. Insofar as these statements refer to the principles, they are directive, justificatory, and emotive. Insofar as they refer to states of affair—and here we have the exact opposite to Hare—they are descriptive and may be true or false. This theory solves not only the problem of the unique characterization of moral judgments, but also avoids the fundamental confusion of the semi-cognitivist formalists between the purposes for which statements are made and the linguistic functions of these statements. But it does not see clearly the necessity for synthetic as against analytic principles, and the impossibility of really *applying* analytic principles, such as Kant's. Application to concrete situations presupposes a relational rather than an implicative pattern, one whose precision grows with its range of applicability. This is possible only with synthetic patterns; it is impossible with analytic ones

Philip B. Rice comes closer to the logical requirements of a moral theory, at least in his criticism of the Oxford School, but not in the construction of his own theory. The Oxford program, he says, cannot actually be carried through. It *seems* to urge us "to go back to Cephalus in the *Republic*. The meaning of value concepts, such as Justice, is to be exhibited by collecting statements about the kinds or conduct that are held to be just, such as speaking the truth or paying your debts."[212] But when it comes to carrying out such a program in detail, Oxford philosophers find themselves compelled, in order to bring some sort of *rationale* into the subject, to offer principles of a higher degree of generality than the program initially envisaged. Toulmin equates the meaning of "right" with its non-cognitive force, which for him is "gerundive," a notion that is nowhere defined.

> Yet when we go to 'analyze' the term right, Toulmin says that we give reasons of a factual or cognitive sort, and the admissible reasons either show that the act accords with the accepted customs and rules of a society, or, when these are disputed, with what amounts to an impoverished version of the utilitarian principle. The utilitarian principle, thus, serves for Toulmin in practice, as Broad has shown in his review of the book,[213] as a definition of the cognitive element in the term's meaning,[214]

and this, as Monro[215] says, gives Toulmin the strenuously denied objectivity of a moral principle. Rice says,

> It is curious that Toulmin should exclude the chief concept in the 'analysis' of the term, and the one that most closely resembles a defining property, from its 'meaning.' For what does analysis analyze if not the meaning? The assumption

seems to be that the non-cognitive factor alone is worthy to be dignified with the status of the meaning, and that the cognitive elements are not part of it. Such a restricted conception of meaning, however, is nowhere defended explicitly by Toulmin.[216]

In spite of his acute analysis Rice does not, in his own ethical theory, rise above the semi-cognitivist position. He does clarify some of its terms, such as "meaning," and the utilitarian principles at the basis of moral concepts. Rice becomes, after Stevenson, the main exponent of the Midwest School of semi-cognitivism.

ii. The Midwest School

The contributions of this school, as of all formal axiologists, center around the relation between the valuational and the descriptive aspect of value judgments—the fundamental relation in value theory—but they do it, as I said, in a more molecular form than the atomistically inclined Oxford School.

Rice tries to break the stalemate between the intuitionists and the emotivists. Both, he says, see one aspect of the value problem: when we call something good we are characterizing it *and* expressing our feeling toward it. But both have reached the limits of their respective methods. Value theory, for all their efforts, is still bogged down in riddles and paradoxes. The way to liberate it lies not so much in linguistic analyses as in *attention to the natural and social context of valuation.* Although this sounds like a return to naturalism, it is not—or not quite. For one, Rice's method is partly linguistic. Second, it is syncretic; he combines naturalist cognitivism with emotive non-cognitivism. There is, he says, an important non-cognitive element in an ethical judgment, just as there is a cognitive one. He is a genuine semi-cognitivist.

The dispute between cognitivists and non-cognitivists, he says, has centered around the question whether, and in what respect, goodness is a *property* or *characteristic* of objects, experiences, and acts. The *empiricists* say that goodness consists in a characteristic such as pleasantness or capacity to arouse desire; the *intuitionists* identify it with a "non-natural" property of a special kind known by intuition. This dispute, says Rice, has exaggerated the problem, for the question whether goodness is a property can be answered both "Yes" and "No."

Rice proposes to answer it "Yes, but...." Goodness refers to a *property functioning* in a peculiar manner. The question must be restated, asking not whether goodness is a property but whether the judgment, "*x* is good" is *both* an assertion that *x* has a certain distinctive property *and* an assumption that the expression as a whole performs a certain distinctive function (as a judgment like "*x* is red" does not). This double-barreled question, Rice argues, must be answered "Yes." In addition, the answer, to be complete, should tell us (1) what property is being asserted, (2) what function is being performed, and (3) what the relation is between the property and the function. The first is the cognitive aspect of the judgment, the second non-cognitive, and the third the relation between the two.

In determining the first, the cognitive aspect, lies Rice's particular contribution. The property asserted is not a set of good-making properties, nor any other set of variables, to be determined by emotivist "persuasive definition" or Wittgensteinian specimen sampling; it is one single property; and it is precisely the one Hampshire[217] singles out as the will-o'-the-wisp of those chasing for definitions in ethics: "to promote the greatest general good." Rice does not fear definitions. "The normative domain is not chaotic....If we seek hard enough and think hard enough we can find in it or make for it a general pattern, just as we do in the realm of physical nature, or of economic behavior, or of logic."[218] The utilitarian principle is the "identifying property" (IP) asserted of actions by all judgments of moral obligation; it is not merely a reason *for* such judgments but a constituent part of their primary meaning. This meaning Rice analyzes into two parts, an assertion that the judgment has the identifying property (IP), and a non-cognitive Matrix Meaning (MM!) which is prescriptive and refers to the realization of IP: "Do it!" Hence, "A is right" equals "A has IP: MM!" Similarly, "I morally ought to do A" = "A promotes the greatest general good; MM!" Any moral proposition comes down to this pattern.

Rice argues that this schema keeps us closer to "the larger natural and social context of valuations" and that it represents "a linkage of the factual or descriptive and the normative or prescriptive elements" not just in language but in human nature—an assertion we recognize as somewhat naive, once we know the complex synthetic pattern necessary to fulfill such a program. From the point of view of a formal science of ethics, Rice's symbols are alchemistic signs. But they do represent a clarification of the equally alchemistic arguments of the semi-cognitivist ethicists.

The "linkage" in question is, as all analytic statements of the fundamental axiological relation, a loose one. The schema does not *assert* it—else it would be capable of empirical validation—and neither of its parts is an assertion. Its status is somewhat doubtful, and its structure does not seem to say more than the proposition: "Whenever I make a moral statement I mean to assert that the general welfare is being (IP) and should be (MM!) promoted," and this seems to be close to Toulmin's ultimate principle. If we ask, but *why* should the general welfare be promoted? Rice does not, like Toulmin, challenge us to give a better foundation of ethics or, like Nowell-Smith, open a trap door such as "logical oddity," but he does throw the problem back into our lap. In the last resort, he says, normative principles "cannot be fully justified in a book; in so far as a justification is possible, it is finally carried out in the white heat of living."[219] Let conscience be our guide. "The global sense of well-being or directedness that manifests itself in feeling and action as well as in thought" is the "synoptic capacity" that is the "final vindicating event for the validating principles" of value.[220] This mode of justification, he concedes, although "the best we have been able to find," is "slippery and far from satisfactory." At best, it works up to a point.

The same is true of the second, the non-cognitive part, of the value judgment, the Matrix Meaning (MM!). It is a "force," a "job," a "function" of judgment; it consists of "dispositional properties"—in the sense of Charles L. Stevenson[221]—"and is capable of treatment on naturalistic and empirical assumptions." Yet, one job or

force is "primary," and Rice calls it "the trigger function." Ethical judgments not only assert a property but also perform a function.

> We can get to these central functions by examining the structure of the ethical or valuational act, and the structure of the situation in which this act takes place. Whatever other functions such terms as 'good' and 'ought' have performed, these terms find their appropriate uses in relation to the inescapable necessity for *choice* or decision.[222]

Here pops up, in Rice's account, the semi-cognitivist jack-in-the-box that mocks all attempts of this school to comprehend values cognitively. It is their pragmatic nemesis. Their naive empirical view of value terms does not allow them to separate these terms from their contextual matrix and incorporate them into a self-explicatory formal system. For Rice, "ought" *expresses the fact that a choice has been made, and serves as a signal to release the action.* This "trigger function" of the term is the heart of the Matrix Meaning. It expresses the broad general function of "ought" in the valuational situation out of which the more detailed meanings of the term develop: it is the basic Matrix Meaning for normative terms. The Matrix Meaning, or non-cognitive function of "good," is a function of it. "Good," for Rice, "usually conveys a *conditional prescription* (or in Kant's language a hypothetical imperative)."[223]

So much for the second point of Rice's program, the *function* of value language. The third point, the relation between the prescriptive function and the descriptive content of this language, comes down to the relation between the Matrix Meaning and the Identifying Property, between "MM!" and "IP." The Matrix Meaning by itself is empty and blind. It tells us to do, or to be ready to do, but not what or how to do. The Identifying Property gives us the cognitive content; it formulates the property, often a rather complex one, by which the presence of goodness, and other values, can be identified. The meaning of a normative term, then, consists of the Matrix Meaning plus the Identifying Property. The Matrix Meaning is not cognitive in its force, and the Identifying Property is a natural property. But the Matrix Meaning is also a natural property directly of the term itself rather than of the object to which the term refers; whereas the Identifying Property is a natural property of the term's referents. "This is good" means "This has the identifying property of goodness; do seek this under conditions C!" "You ought to do this" means "This has a certain identifying property; do this!" or, in general, "the logical structure of ethical reasoning" has the form:

"*x* is E" = "*x* has IP; MM!"

where "E" stands for an ethical term, "IP" for an Identifying Property, and "MM!" for a Matrix Meaning. The simplest case of an ethical inference would be:

"*x* is E" = "*x* has IP."

"*y* has IP."
"Therefore *y* is E."

This conclusion comprises an injunction to seek *y*, provided the assumed conditions, if any, are satisfied.

The Achilles heel of Rice's theory is its lack of a sound methodological basis, hence the lack of validation or justification of the major premiss of this syllogism. "The principle or major premiss is established or justified in whatever way we may decide that such principles can be justified." This lack makes the whole procedure one of shorthand or alchemical symbolism rather than of genuine deduction. "The minor premiss is an empirical statement, since the Identifying Property is empirically discoverable. The conclusion follows syllogistically, but is itself an empirical statement since it rests upon an empirical premiss."[224]

This is a naturalistic value theory clothed in symbols that make clear the structure of the theory but by no means the nature of value. The fundamental terms are as undefined as they have always been, and the shorthand, adding a pseudo-precision to the vague foundations, only serves to accentuate the bizarreness, the methodological oddness, of this and similar axiological procedures.

Missing in Rice as well as the Oxford philosophers—a fundamental discussion of axiological validation—is supplied by another Midwestern philosopher of Austrian extraction, Herbert Feigl, whose argument leads up to the cognitivist position.

Feigl[225] discusses the problem of justification in general, not only with reference to ethical principles but also in regard to the more fundamental principles of deduction, induction, and the criterion of factual meaningfulness; and in a later essay[226] he treats the problem of ethical justification in particular. He makes clear what other critics of semi-cognitivism, such as Munro, only suggest with more or less obscure circumlocutions: *The justification of moral judgments is an ethical system analogous to systems in science.* Unfortunately, his view of scientific systems is haunted by the positivistic nemesis of so much of value theory, a naively empirical view.

In particular, he is not clear enough about the difference between analytic and synthetic systems, and therefore his discussion lacks logical precision. Moral judgments, he suggests, "are reconstructed as knowledge claims and as subject to validation or invalidation by virtue of their accordance or non-accordance with the supreme norms of a given ethical system."[227] In order to carry out this reconstruction, he thinks, "judgments of right and wrong, of obligation and of rights, must be construed as empirical propositions."[228] This means that we must deliberately devise what in other contexts must be repudiated as the naturalistic fallacy and amounts to construing moral norms in the logical form of general laws.

> But in contradiction to the general laws of the empirical sciences the moral laws are not subject to confirmation or disconfirmation by empirical evidence—at least and certainly not in the same sense. Their logical character is rather that of basic definitions or conventions for the use of normative terms with refer-

> ence to empirical aspects of conduct, intentions, attitudes, personality traits and social objectives.[229]

Only with a reconstruction of this sort, Feigl believes, can we escape the sterility of formalism in ethics, which is indeed sterile, but without seeing the alternative of a genuine synthetic formalism—an oversight that is the more serious as this and only this gives empirical science its fertility. Without a formal frame of reference, we should remember, observations are not "empirical" but merely a hodgepodge, and their "symbolization" is alchemy and astrology, but not science.

Feigl rightly sees that validation in ethics is methodologically analogous to validation in science; he only misinterprets science. He envisages a universal code of morals that will function for the cognition of moral reality as inductive and deductive logic function for the cognition of facts, but it is to be constructed on an empirical basis and not, like logic, on a formal one. If we wish to know whether killing in self-defense is morally right, we cannot get an answer unless definite and empirically specified moral rules (including priority rules between standards) are provided as *justificantia cognitionis* of the *correctness* of the moral judgment at issue. Rather than one universal code, all we can expect are a multitude of codes. A consequence of Feigl's analysis is that it is futile to criticize one system of norms in terms of another that is logically incompatible with it.

Feigl's system for validation comes down, more or less, to the conventional one of Toulmin and other semi-cognitivists. And as these have pseudo-logical "gimmicks," such as Nowell-Smith's trap door of "logical oddity" or Rice's "Matrix Meaning"—all shorthand expressions for certain pragmatic aspects of judgment situations—so Feigl has a gimmick with respect to validation. Contextual or pragmatic validation is *vindication* (*justificatio actionis*, as against validation proper or *justificatio cognitionis*).[230]

> Validation terminates with the exhibition of the norms that govern the realm of argument concerned. If any further question can be raised at all, it must be the question concerning the pragmatic justification (vindication) of the (act of) adoption of the validating principles....While vindication can never prove (validate) any principles of validation, it can clarify their role in the context of human thought and action.[231]

Vindication is contextual validation. Once a moral judgment is *validated*, by reference to the respective code, it may be *vindicated* with respect to its situational context.

> The purposes which may be adduced in vindicating arguments for a whole system of moral norms are embodied in the individual interests and social ideals which we have come to form in response to life experience. The principle of justice (the golden rule) or other implicit definition of 'right actions' may, for example, be vindicated by reference to the ideal of a peaceful, harmonious, and

> cooperative society. Or the principle of benevolence may be vindicated by reference to the ideal of the greatest happiness of the greatest number.[232]

Unfortunately, methodologically we have no advance here. The concept of a harmonious society is as vague as that of justice, and that of the greatest happiness as vague as that of benevolence. As in all analytic accounts, *ignotum* is "explained" by *ignotius*. This failure is relieved only by a synthetic account, on the basis of the postulational procedure of a meta-ethical axiology, as made clear by Henry Margenau.

Although he makes no qualitative methodological advance, Feigl's program envisages a kind of quantitative advance "close to the Kantian" point of view.

> In that the great variety of self-evident *prima facie* obligations countenanced by the intuitionists and the corresponding equally great variety of interest-fixations allowed for by the emotivists are supplanted by a relatively small number of basic norms and priority rules.[233]

This program differs from the Kantian metaphysics of morals in that it envisages a plurality of alternative ethical systems as a matter of historical and contemporary fact. But it does not establish postulates and principles that rule these empirically specified moral rules. The point of view is similar to one proposed and elaborated in great detail by Henry Lanz[234] some ten years earlier. Lanz must be regarded as an axiological cognitivist because of his insistence on the invariance of all the axiological frames of reference; but Feigl, who lacks this unifying emphasis, is not quite (even though almost) a cognitivist.

This also appears in Feigl's discussion of objectivity. Whether the pluralism and relativism implied in his viewpoint rules out objectivity depends upon the precise meaning of the term "objectivity."

> The objectivity of arithmetical truths lies in their logical necessity. Anyone who understands the postulates and definitions of arithmetic and complies with the rules of deductive logic will concede the universal validity of arithmetical truth. The objectivity of propositions of factual knowledge means something different: the intersensual and intersubjective confirmation of knowledge-claims, —and everything that these phrases imply, especially the principles of confirmation. "Objectivity" in the moral domain may mean a variety of aspects: (1) The logical necessity inherent in validation. (2) The logical consistency of the norms of one system. (3) The factual objectivity of the characterization of empirical features like attitudes, conduct, *etc.*, which are the subject of moral appraisal. (4) The factual objectivity of statements regarding conditions-consequences and means-ends relations. (5) The factual objectivity of statements concerning human needs, interests, and ideals as they arise in the social context. (6) The conformity of the norms with the basic bio-psycho-social

> nature of man, especially as regards the preservation of existence, the satisfaction of needs, and the facts of growth, development, and evolution. (7) The degree of universality with which certain moral norms are actually or potentially embodied in the conscience of man within given cultural groups or perhaps even in cultural groups of all times and climes. (8) The equality of all individual persons before the moral laws—as conceived in the universal applicability of these laws.[235]

Feigl does not discuss which, if any, of these senses of objectivity must be applied, but Kurt Baier discusses various meanings of "objectivity" and attempts to show that the "subjective-objective" controversy has been confused by the failure to distinguish between these meanings.[236]

The methodological examination of ethical objectivity was made, in detail, by Henry Lanz's *In Quest of Morals*, which in its original version, published in Sweden, was, precisely entitled *Ethical Objectivity*.[237] The book won the first prize in the competition of the publishing house *Nutur och Kultur* for the best essay on the objective basis of ethics. Lanz's system is designed to show that all systems of ethics have their justification if only they are considered within a higher frame of reference that guarantees their mutual transformation. But Lanz does not use the frame of reference he presents to redesign the systems of ethics, integrate them, and thus build a metasystem of ethics. This task he leaves to the future as something that, as he says with St. Luke, "shall be required of this generation."[238] The reason why Lanz fails to do it himself is precisely the shortcoming of his own system, his lack of defining the superstructure of the various kinds of ethics. His work is therefore similar to Moore's in three respects. He (a) fails to define value, yet (b) makes clear its systematic position, and (c) is aware of having written the prolegomena of a new science. For Moore "good" is indefinable, but it is the fundamental notion of ethics, and its indefinability has definite systematic consequences for a future ethics. For Lanz,

> the fundamental ethical law, whatever its verbal formula may be, is something in the nature of a tensor. It defines the structure of ethical values independently of any particular coordinate system that may be employed in the operation of valuation....The fundamental law of ethics, whatever its content, is an assumption which *defines the idea or the essence of value as such but not any particular value.* The material content of ethical behavior can never be deduced from that idea. The material content is something in the nature of...a vector.[239]

The relation between Value and the values of particular kinds of ethics is like that between tensor and vector or, to re-translate Lanz's language into logic, between a variable and its values. But we do not learn from Lanz what the nature of that variable is and how, verbally, we can understand its relation to the particular sets of moral value that are its logical values. If we did, he would have been able to redesign Ethics. As it is, we only get a glimpse of such a future science.

> 'Ethical theory' is a body of propositions which defines the sense in which the word 'ethical' is used. This, we have seen, is comparable to the sets of coefficients, μ , which in Riemannian geometry defines the sense in which the word 'space' is to be used. Different ethical ideas, accordingly, define what we have called axiological space, i.e. the medium in which ethical standards are assumed to be operating. No matter what kind of medium we choose—the perfectionist's paradise, or the materialist's playground of libidos and inhibitions, or the hedonistic atmosphere of supreme pleasure—in any case we cannot leave our standards untransposed *if* we wish them to operate under a new set of conditions. And within any given set of ethical assumptions the transformation of standards proceeds, not according to our arbitrary whims or wishes, but according to their own inherent structure, which remains objective and invariant.[240]

Transformation from one axiological space to another, that is, from one ethics to another (actually, from one value science to another, since Lanzian metaethics is really axiology), follows certain rules. But Lanz does not give an ethical interpretation of these rules; he does not translate Riemann into axiological language. He does not lift ethics up to the third level of analysis by defining what the Value is, of which all the systems are variants. He does not define the variable or the tensor. For that reason he is unable to define the vectors of values, except within their respective systems. But whether these particular definitions define an axiological space, an ethical theory that corresponds to value "reality," we know as little as we know "what kind of space-time corresponds to physical reality....We do not know the 'real' state of affairs."[241] Einstein's equation of gravitation defines a specific form of space-time and

> is, of course, merely an approximation....The formula describes a possible state of the world which might be met with in nature under suitable conditions. By deducing the orbit of planets from that law he has discovered how that state of the world would be recognized observationally if it did exist. And in this way he was justified in concluding that the space-time described by his law is the one which, with a high degree of approximation, corresponds to our physical and astronomical universe.[242]

But if physics is that modest, why not ethics? What Einstein did, Lanz tells us, "is all that can be reasonably required of an objective theory....Why should more be required, or even expected, from ethics?"[243] The answer to this question I have already given: because in ethics no observation can test the correctness or "objectivity" of our theory. No inherent feature in the set of Einsteinian space-times is necessary to select one of them as the system defining physical reality. Observation settles, and has settled, that question. But in a set of possible axiological spaces no one space will be outstanding for observational recognition. Therefore, the set must itself contain

criteria for (a) determining that the set is inherently ethical, that is, relevant, to possible ethics, and (b) determining the particular rules that transform one ethical system into another. This is only possible if Value, the variable, is defined in such a way that values—both in the moral and the logical sense—will follow. Needed, then, to complete the Lanzian structure into a third-level system is a definition of value in terms of logical variability. This would be one way to a third-level system of ethics. In showing a way to this and, by analogy to mathematics, re-interpreting the notion of variable in a way significant for ethics, Lanz may have made a lasting contribution. Indeed, his work may be as important as Moore's. As it stands, however, his system is no more than an ingenious demonstration that there are metaethical rules and that ethical theories can be handled according to them.

Lanz's system attempts to combine metaethics and mathematics. Unlike the other mathematical attempts at moral systems mentioned earlier, from Plato to Hermann Friedmann, it is not based on an analytic definition of value; but neither is it based on a synthetic definition. It leaves the question of definition open. It thus is not really a theory of *value*, but rather a guide to the possible construction of such theories. It therefore is not a cognitive *value* theory, but a theory of possible value cognition. As such, it may be more valuable than many a cognitivist value theory, for often what such a theory pretends to know is anything but value.

Let us now turn to these theories.

Six

NATURALISTIC COGNITIVISTS

But what the Assessor says in Either-Or *is also true: that the more exquisite the drink one succumbs to, the more difficult the cure. And now to have fallen prey to 'science.' Merciful God, it would require a world revolution to drag a man out of this drunkenness.* Søren Kierkegaard, *Journals*, 1850.

The semi-cognitivists are conscious of this value dilemma: Either value is fact or value is not fact; if value is fact it can be known, but this knowledge is not valuational; if value is not fact its knowledge would be valuational, but there is no such knowledge. In the first case, *value* cannot be known; in the second case, value cannot be *known*. In both cases, *value* cannot be *known.*

Yet, the semi-cognitivists do not despair of the possibility of value knowledge, as do the non-cognitivists; still, they do not throw themselves wholeheartedly into the search for it, as do the cognitivists. They do so only halfheartedly. They drag their feet, shackled as they are by positivistic chains. For them the dilemma is unsolvable, except by piecemeal unraveling of individual situations. They do not take the dilemma by the horns, nor do they escape between the horns. They do acknowledge the alternatives of the dilemma—but they, so to speak, break off one horn. They say value knowledge is possible, but their "knowledge" has none of the characteristics usually meant by "knowledge."

The cognitivists have no such restraints. They throw themselves wholeheartedly into the search and attempt to solve the dilemma in two possible ways, taking it by the horns. The naturalists take it by one horn, the non-naturalists by the other. Both acknowledge the alternatives of the dilemma, but each denies one of the consequences. For the naturalists, value is fact, and hence factual knowledge is value knowledge. In a sense, the naturalists escape between the horns by not acknowledging any dilemma at all. For if value is fact then value is not non-fact, and there is no dilemma. For the non-naturalists, value is not fact, but value knowledge is possible. The naturalists regard value and fact as essentially *alike*; hence, value knowledge is essentially like factual knowledge, and they propose that factual knowledge is value knowledge. The non-naturalists regard value and fact as essentially *different*; hence, value knowledge is essentially different from factual knowledge, and they construct factual knowledge.

Although naturalists do not acknowledge the positivistic position, they fulfill the positivistic program, not out of necessity as do the positivists, but out of conviction. The positivists hold that since value sentences are not propositions, wherever values appear in propositions, these propositions belong to some naturalistic science such as psychology, sociology, and the like. Thus, the naturalistic sciences appear willy-nilly because value sciences are impossible. The naturalists are less sensitive

than either the positivists or the non-naturalists; they do not see any essential difference between fact and value expressions. While positivists drown value knowledge in fact knowledge out of necessity, because there is no other alternative, naturalists do the same out of inclination, because for them value *is* fact and fact *is* value. Positivists see value, but it does not fit into their world; they kill it in self-defense, in order to keep their sanity. Naturalists run over it by accident; they do not see it at all; they commit manslaughter. For both, value is a kind of freak, indeed, a monstrosity, fitting in nowhere, like a wolf child. Neither treat it as human. Positivists do see that it is human, but they throw it to the wolves because they see no way of fitting it for human company. Naturalists also throw it to the wolves, but they do it in a more straightforward fashion—they think it *is* a wolf. Thus they are not plagued by the stings of conscience that rack the positivists and make them explode into ever new camps of freakish theories to account for the freak—ever more of those "strangest aberrations ever to visit the mind of man," to speak with C. I. Lewis.[1] The conscience of the naturalists is clear, simple, clean, and more naive. They do not hear its voice at all, while the positivists do hear it and try to appease it with all kinds of rationalizations. Their semi-cognitivist theories thus may be called rationalizing rather than rational. The cognitivist theories of the naturalists are rational, but, unfortunately, they are not about value.

Only non-naturalistic cognitivists see clearly the peculiar nature of value and attempt fully to understand and account for it—to make for value a home within the confines of human rationality; but many of them, too, suffer from inherent inconsistencies. They do not secularize value empirically, but they hypostatize it ontologically.

Neither the naturalists nor the non-naturalists have so far been able to solve the value problem. Naturalists know what is not value; non-naturalists know not what is value. They mutually obvert, but they do not solve the value problem. The naturalists, as Paul Kecskemeti[2] pointed out, behave unscientifically in the name of science, the non-naturalists scientifically in the name of intuition. Note that for Kecskemeti the teleological position is non-naturalistic, while for Moore it is naturalistic. Neither naturalism nor non-naturalism "has an advantage in terms of hardheaded, empiricist toughness." Neither, as Arthur N. Prior has shown, is capable of proof. The naturalistic fallacy, in this respect, is no fallacy. As long as no definition exists to give the meaning of "natural" or "non-natural,"as applied to characteristics, naturalists may well define "good" as the natural property x, say, "pleasantness," without committing a fallacy if only *they do not hold that what they are doing is Ethics*—but rather Hedonics or the like—or *explain why and in what respect what they do is Ethics*. But they cannot have their naturalistic cake and eat Ethics too.

> What these people plainly like to hold is that goodness is both identical with pleasantness and not identical with it; and, of course, it cannot be done. They want to regard 'What is pleasant is good' as a significant assertion; and it can only be so if the pleasantness of what is pleasant is one thing, and its goodness another. On the other hand they want to make it logically impossible to contra-

> dict this assertion—they want to treat the opposing assertion that what is pleasant may not be good as not merely false but logically absurd—and this can only be done if pleasantness and goodness are taken to be identical.[3]

Against such *inconsistent* naturalists—and most of them are—Moore's argument, says Prior, is valid; but Moore's argument does not logically prevent any naturalistic ethics. The non-naturalist cannot refute the naturalist by simple assertion, as little as the naturalist can the non-naturalist. Thus, what is needed on both sides is definition. Since this is a cognitivist requirement, the solution of the naturalist-non-naturalist dilemma presupposes the cognitivist position. No semi-cognitivist position, least of all the Oxford School with its militant stand against definition, can solve it. Both naturalists and non-naturalists are, thus, inherently, cognitivists.

This means that both of them affirm the propositions that (1) there is value, (2) it can be known, and (3) knowledge consists of systematization. But almost every word, "value," "known," "systematization," has a different meaning for them. The cognitivists are divided both ontologically and epistemologically, both as to their view of the nature of *value*, and the nature of *value knowledge*. For this reason, I will divide both naturalists and non-naturalists into empiricists and formalists, depending on whether the nature of value or the nature of value knowledge is their primary concern. In general, the empiricists are less precise in their methodological analysis and content themselves with propositions (1) to (3), while the formalists go on to propositions (4) and (5)—that systematization is formal, based on axiomatic formulation and deductive expansion of the essence of the value experience, and that a value system proves itself by the scope of its applicability to the value world. In general, also, non-naturalists are more formalistic than naturalists and more inclined to accept all five propositions. The naturalists share with the semi-cognitivists their anti-systematic bias. Their view of systematization is inductive and empirical rather than deductive and *apriori*. Thus, a non-formal non-naturalist is apt to be more formally inclined than a formal naturalist.

The naturalists are, then, closer to the semi-cognitivists, who are regarded by some writers as linguistically disguised naturalists. Naturalists are divided in two groups, empiricists and formalists; the first attempt to find value in the subject matter, the second in the method, of the natural sciences. The empiricists commit the naturalistic fallacy, while the formalists are apt to commit the metaphysical fallacy.

1. Naturalistic Empiricists

This is the naturalistic position in the narrow sense. When speaking of "naturalists," we usually mean material rather than formal naturalists. A systematic treatise on material naturalism would investigate the materials of the various natural and social sciences and examine how they are related to whatever is regarded as the subject matter of Ethics. The only existing treatise of this kind, Abraham Edel's,[4] discusses the relationships between the social sciences and ethics. Ethics, Edel believes, can

reach no stricter systematization than these sciences have reached. He is forced to content himself with keeping the concept of good as an "open" (a euphemism for "vague") concept, and to limit himself to partial modes of defining. An ultimate definition of "good" and "ought," he believes, depends on getting a complete picture of the nature of human beings, their cognitive faculties and social relations. Since this is not yet available, he uses as a working conception a notion of good that has to do with the direction of human striving and regards evil as the object of an aversion.[5]

Here we have the Wittgensteinian result reached on an empirical rather than a methodological basis. While in Wittgenstein we have a conscious renunciation of phenomenal penetration and hence of essential definition, with the Edelian naturalist we have a pragmatic renunciation: things are not yet ripe for valuational insight; we have to play on the surface of the phenomena, for the sciences have not yet defined for us our subject matter. The cognitivist position of the naturalist serves as efficiently for stopping the value enterprise as the position of the semi-cognitivist. While semi-cognitivists put all kinds of gimmicks on the drill of phenomenal penetration—"logical oddity," "indication," and such—which stop it from going too deeply into the subject, naturalists leave the drill unencumbered but stop it when it meets a certain rather loose and shallow layer, the phenomena of social science, believing that this is what they seek, if only they wait a few geological ages for it to solidify.

Both semi-cognitivism and naturalistic cognitivism are half-hearted efforts; if the naturalists lack the positivistic shackles that weigh down the semi-cognitivists, they also lack the wings of inspiration and power of insight that characterize the true scientific explorer or scientist-philosopher, such as Dr. John Locke. Locke—before this very same problem, "the principle of morals"—thought that material inquiries "took a wrong course; and that before we set ourselves upon enquiries of that nature it was necessary to examine our own abilities and see what objects our understanding were, or were not, fitted to deal with." It is peculiar that for morals he advocated the opposite method he advocated for natural science, and that the historical development of both followed the opposite course to the one he advocated. The literature of naturalistic cognitivism is the outcome of this doubly inverted development, based as it is on Locke's recommendations for natural science, and opposed to his recommendations for ethics.

Although Edel is not prepared to follow the analogy of science and ethics down to its methodological roots, he does his best to fortify his argument against non-naturalists, cementing, as it were, his drilling hole and strengthening it against collapse in case someone pokes holes in it and asserts that what it leads down to is not value at all but fact. The "unbridgeable chasm" between "is" and "ought," he says, is nothing but unduly blowing up a limited logical proposition, namely, that a judgment of value cannot be derived from a judgment of fact.

> It is true, roughly speaking, that a categorical assertion containing a given term does not follow validly from premises which do not contain the term. No

> conclusions about what ought to be or what is good can be drawn from premises solely about what is.[6]

But this is not different from syllogisms. No conclusion that Socrates is mortal can be drawn simply from the premise that all men are mortal; that Socrates is a man must be added, thus introducing the term 'Socrates' into the premises. All the laws and observations of physics and astronomy could not serve to deduce that an eclipse will take place unless some premise defining the term 'eclipse' is introduced, or some rule for its use provided. This warrants no conclusion that an eclipse is a non-physical phenomenon, with overtones of suspicion that it may be an instrument of Zeus or else a human fiction! Similarly we cannot on this logical ground alone proclaim the uniqueness of Socrates. And so nothing is established likewise about the independence of value and fact.[7]

It is, therefore, legitimate to survey the social and psychological sciences and examine their relevancy for valuation. This material enrichment of value theory, Abraham Edel believes, will eventually point the way to a solution of formal problems. In my view, this is putting the cart before the horse. Before using the contents of natural science as relevant to ethics, the *method* of natural science must be analyzed and applied to a possible *method* of value science.[8] The subjects of ethics—moral life and death, love and hate, justice and liberty—are far more complex, subtle, and intricate than those of natural science; yet, the methodological tools proposed to deal with them by naturalists of Edel's type—the tools of the social sciences—are far more simple, naive, and unsophisticated than those of natural science—almost as much more simple as the phenomena they are supposed to deal with are more complex. It seems odd—methodologically odd—to expect a "scientific" account of a more complex subject matter by a less complex method. This methodological oddness, based on lacking understanding of the difference between analytic and synthetic methods, is the common characteristic of all material naturalists. Edel, in *Science and the Structure of Ethics*, does not discuss the methodological difference between science and philosophy or the axiomatic nature of science. As a result, he confuses linguistic analysis with formalization, misunderstands the relation between ethics and axiology, and regards confusions of analytic and synthetic procedures, such as Jeremy Bentham's and others', as measurement.[9]

While Edel's survey of the whole field of the social and psychological sciences leaves the concept of value "open," Maxime Glansdorff,[10] after a similar survey, lands firmly on one science as indicative of the locus of value. His emphasis is partly anti-metaphysical in order to counteract the deep metaphysical current in continental value theory. Value is a general qualification of things that are not indifferent. This presupposes, first, the mental representation of an object, and second, our being affected by the thing valued. We give things value not simply because we represent them, but also because they impress us. Value is a condition not only of the intellectual but also of the affective order. The analysis of the affective qualities of consciousness leads Glansdorff to the result that the theory of value is nothing but a part

of the biological theory of *adaptation.* Value is, in various degrees, the flowering of consciousness. It is more than an idea and more than an emotion. It is a synthesis of the psychic life capable of uniting the highest thoughts with the deepest affections. It is the integral reality of the human spirit, the state of integral awareness of consciousness. Since consciousness is aware in proportion to the *lack* of adaptation of human beings to their environment, that is, the conditions which surprise them agreeably or disagreeably and mobilize more or less their nervous apparatus, value is a consequence not of an adaptation to circumstances or a harmony between self and the world, but on the contrary of a non-adaptation more or less varied. The richness of the spiritual life thus depends on the imperfection of human nature.

For Glansdorff, a value judgment is an expression of value as a psychic fact. The essential condition of the judgment of value is comparison, that is, the mental act of comparing between the object of a tendency and that of an actual incident. Indifference ceases, the subject leaves its neutrality either positively when it approves the change that an incident has brought about, or negatively when it disapproves. The comparison between the object of the tendency and that which has brought about the incident is teleological. It is so not only when someone says "*X* is better than *Y*," but also when someone says "*X* is good." When I say that "Butter is better than margarine," the essential nature of my judgment resides in a rapport of more general and more fundamental character than the comparison of the object butter with the object margarine. It resides in the character of the object to which both are compared, namely, that of a tendency derived from my alimentary habits. If I say that "Butter is better than margarine," it is because butter is more in conformity with the object of this tendency of mine than margarine. Thus, a value judgment is always a comparison of certain objects with the object of a tendency. The same comparison exists when I simply say that a thing is good. (In terms of formal axiology, Glansdorff analyzes both "better" and "good" as "good for me."[11]) In this case I confirm that the thing in question corresponds to the object of that tendency. Hence, all value judgments are both *positive* and *comparative*. This fundamental view of value the author applies to aesthetics, economics, ethics, and other value sciences. In economics, value is active and concerns more the finality than the existence of the things valued. In aesthetics, value is contemplative, comprehending things more in their being than in their becoming. In ethics, the two viewpoints are combined; moral value is a synthesis of the active and the contemplative. The moral ideal is regarded as beautiful in its spiritual existence while it is regarded as morally good when seen in the perspective of finality.

This profound analysis makes the best of an analytic concept and translates a characteristic aspect of French ontological thought—the efficacy of the negative, which we find in Sartrean as well as throughout French axiological metaphysics—into terms of a naturalistic pattern. For all this, the argument shares the failure of all analytic thinking: it gives hints rather than insights, for the explicatory terms, "finality," "being," "becoming," and so on, are as vague as the terms being explained.

While Glansdorff sees the locus of value in the consciousness of adaptation, Gosta Carlberg[12] finds it in human *conscience*, psychologically understood. He bases his work on the psychological investigations of Abraham Maslow—both Maslow's book[13] and his articles collected in book form[14] after Carlberg's essay appeared; and he develops them philosophically. Although the value in question is ethical rather than biological—the value of persons in their physical-spiritual self-fulfilment—it has axiological overtones in its rational approach to the problem.

In Werner Wolff's[15] approach, the problem of the *uniqueness* of the value-consciousness of each person is solved by focusing on the singular frame of reference that gives each incident in a person's life its position and meaning within the whole of the individual pattern. His "existential psychology" interprets the data in terms of this unique value pattern, in contrast to the various interpretations of analytic psychology that put all human manifestations into conceptual straitjackets. On the basis of his psychology of values, Wolff fashions a therapy that makes the individual discover his own value pattern and recreate his values. In Stephan Strasser's work[16] we find a phenomenological superstructure for Wolff's inductive procedure. Together these two studies are prolegomena for the systematic structuring of intrinsic valuation. They demand comparison with the relevance of positivistic "therapy" for the value experience, with psychologically based value theories proposed by philosophers such as Maria Ossowska and Bertrand Russell, and with value theories based on various aspects—phenomenological, teleological, hedonic—of psychological experience, such as Maurice Mandelbaum's, Albert L. Hilliard's, and others.

Maria Ossowska,[17] after rejecting psychological hedonism, gives a detailed analysis of experiences connected with the moral life—moral sense, conscience, remorse, feelings of guilt, and the like—and thus illuminates the twilight realm between psychology and ethics from the side of philosophy as Wolff and Strasser do from the side of psychology. All three works make clear that this realm cannot be defined by empirical description,[18] but only by formal insight and axiomatic construction. Only thus will the phenomena perceptively described by these writers find their common frame of reference and their precise systematic position within the whole of axiology as well as within the specific realm of axiological psychology.

Bertrand Russell[19] psychologizes the analytic concept "choice" and links it to "desire." Any state of affairs has an intrinsic quality that inclines us to choose it or not to choose it. He calls this intrinsic quality good when we incline to choose it and bad when we incline to reject it. In an inanimate world, nothing would be either good or bad. Hence, the definition of "good" must involve desire. Russell suggests that an occurrence is *good* when it satisfies desire or, more precisely, that we may define "good" as "*satisfaction of desire*." An occurrence is *better* than another if it satisfies more desires or a more intense desire. He does not pretend "that this is the only possible definition of good but only that consequences will be found more consonant with the ethical feelings of the majority of mankind than those of any other theoretically defensible definition."[20]

The objection that some desires are bad, and that their satisfaction is a further evil, Russell meets by the notion of compossibility of desires. If A desires that B should suffer, and succeeds in satisfying his desire, the whole state of affairs is not good, and the definition does not imply that it is. B's desires are not satisfied, and A's satisfaction is a source of dissatisfaction to others. A's and B's desires are incompatible. There can be a greater total of satisfaction of desire where desires are compossible than where they are incompatible.

This leads to an ethics by which desires may be distinguished as right or wrong, or, speaking loosely, as good and bad. Right desires will be those that are capable of being compossible with as many other desires as possible; wrong desires will be those that can only be satisfied by thwarting other desires. Usually when an act is right, according to the definition, it is one toward which we feel the emotion of approval; and when it is wrong, it is one toward which we feel disapproval. Surveying the acts that arouse emotions of approval or disapproval, we find that, as a general rule, the acts that are approved of are those believed likely to have, on balance, effects of certain kinds, while opposite effects are expected from acts that are disapproved. Effects that lead to approval are defined as "good," and those leading to disapproval as "bad." An act of which, on the available evidence, the effects are likely to be better than those of any other act that is possible in the circumstances, is defined as "right"; any other act is "wrong." What we "ought" to do is, by definition, that act which is right. It is right to feel approval of a right act and disapproval of a wrong act. These definitions and propositions, Russell believes, if accepted, provide a coherent body of ethical propositions that are true (or false) in the same sense as if they were propositions of science. Reason in valuation, thus, is a subject of exact inquiry. But "reason," in this context, has precisely limited meaning. "It signifies the choice of the right means to an end that you wish to achieve. It has nothing whatever to do with the choice of ends."[21] The latter is irrational.

> Desires, emotions, and passions are the only possible causes of action. Reason is not a cause of action, but only a regulator. If I wish to travel by plane to New York, reason tells me that it is better to take a plane which is going to New York than one which is going to Constantinople. I suppose that those who think me unduly rational consider that I ought to become so agitated at the airport as to jump into the first plane that I see, and when it lands me in Constantinople I ought to curse the people among whom I find myself for being Turks and not Americans. This would be a fine, full-blooded way of behaving, and I would, I suppose, meet with the commendation of the critics[22]

who tell Russell "over and over again" that he overestimates the part of reason in human affairs.

Again, this is an ingenious elaboration of some analytic concepts; yet, the total is somewhat of a hodgepodge. What is the exact relation between choice and desire? Between compossibility and incompatibility? Between "good" as the intrinsic quality

of leading to choice, and "good" as effects leading to approval? Between the "ought" that refers to right acts, and the "ought" that bids us do "good"? What are the definitions of moral, social, aesthetic, economic value? Compossibility and incompatibility are on a different logical level than desire, approval, and similar psychological phenomena. What *is* the difference of these levels? How is compossibility as such related to compossibilities of desires? Are there incompatible compossibilities and compossible incompatibilities? How is the compossibility of desires related to the desire for compossibility? And how is the approval of incompatibility related to the incompatibility of approvals? How are approvals related to the various desires? There are as many questions as "explanations"—for the simple reason that here again we have analytic definitions of *ignotum per ignotius*. It is amazing that a mind so demanding in formal logic can be so easily satisfied in ethics, so content with the mere appearance of coherence produced by random implications of analytic concepts. In 1952, Russell declared himself "not quite satisfied with any view of ethics that I have been able to arrive at, and that is why I have abstained again from writing on the subject."[23]

Thus, Russell's emphasis on reason is somewhat specious. His value properties are emotive properties—his only alternative to their not being sensory properties. Yet, as has been pointed out,[24] neither are the primary properties of science. Russell does not hold that the first are the emotive ones, but solves what may be called the fundamental relation of science—that between secondary and primary qualities—by his theory of logical constructionism.

John L. McKenney, applying this method to the fundamental axiological relation—that between sensory and value properties—comes to the result that goodness is not a name but a propositional function, a procedure and a result very close to my own. He agrees with me in (1) seeing the analogy between the fundamental scientific and the fundamental axiological relation, (2) asking for an analogous treatment of both, and (3) solving the fundamental scientific relation by the theory of descriptions, thus regarding value as an incomplete symbol, that is, one that has no meaning in isolation; it has a name but obtains its meaning in a context with other symbols. Value thus becomes a propositional function or variable.

McKenney's procedure differs from mine in not clarifying the difference between an analytic and a synthetic context for such symbols. Saying that value may be an incomplete symbol is not sufficient. Necessary also is specifying the context in which it is such a symbol. This context, if axiological analysis is to advance, must not be an analytic one, for example, of psychology or politics,[25] but must be synthetic. That is, the distinction between concept and term, as developed in *The Structure of Value*,[26] must be made axiologically clear. Russell himself does not make clear these *structural* distinctions of the contexts of contextual definitions, due to his empirical view of science. His view of science as a set of incomplete symbols is a halfway house to my theory of science as a formal structure. In using it, McKenney lifted Russell's material view of values as desires into the implicative formality of analytic concepts, but not into the axiomatic one of synthetic terms.[27]

A psychological ethics, based on the *Gestalt* concept, flying, not quite legitimately, the flag of phenomenology, is proposed by Maurice Mandelbaum.[28] He approaches the problem of value through a "phenomenological"—"structural," "situational," "contextual"—analysis of moral judgments. Going back to the example of the eighteenth-century British moralists, and in supposed contrast to the linguistic school of Oxford, Mandelbaum examines what he believes to be the *facts*—as against the language—of moral experience; and he *describes* the standards he believes to be actually used in value judgments rather than *prescribing* the standards that ought to be used. He, too, lands firmly on one analytic concept, that of "fittingness," which, supposedly, furnishes the common ground for all moral judgments. This concept is interpreted naturalistically and stripped of some of its eighteenth-century overtones. Mandelbaum believes that the determination of the differentia of the class of moral judgments—"one of the most fundamental tasks of an ethical theory"—is a task of situational rather than of semantic or syntactical analysis. "Any such semantic and syntactical analysis actually presupposes a knowledge of the characteristic of moral judgments, rather than being the means through which such a knowledge can be obtained."[29]

Here we have the usual empiristic misunderstanding of the scientific method. As we have seen, the frame of reference—the "syntactical analysis," to use these inadequate terms, the axiomatic construction, to say it more adequately—determines the phenomena of science as the practical part of science itself and the result of its inherent method. Mandelbaum's disagreement with the Oxford School is thus more apparent than real.[30] It is impossible, he believes, to determine the connotations of terms such as "good," "right," or "ought" without first inquiring upon what occasion and in what different alternative ways these terms are used. He represents, thus, the contextual aspect of the Oxford approach, which is inherently connected with its linguistic aspect. "So long as our aim is that of understanding man's moral experience, an ethical inquiry must constantly cross and recross the boundary between what is asserted by a moral judgment and the psychological aspect of the judgmental act."[31]

"Psychological" is here understood in a kind of *Gestalt* sense. The trait that all moral judgments have in common is that a direct moral judgment, one made by moral agents in their situations, is always a response to an objective demand, a "reflexive demand" of the situation upon the agent, to complete the situation *in just this and no other way.* A direct moral judgment is a demand for situational *closure* in the *Gestalt* sense of the word. Direct moral judgments are made, and only made, when a situation is apprehended as being somehow incomplete and requiring a certain action by someone to complete it. This fittingness of response is what is meant by "right" and by "good." It is the suitability of an action to a situation, the situation including past and future elements such as promises previously made and purposes and goals to be accomplished.[32] There is no special non-natural fittingness; moral fittingness is a variety of a generic fittingness that cannot be defined but can be recognized with the help of examples—another affinity with the Oxford position.

Which of these examples is moral and which not is, of course, the question. Mandelbaum's criteria for the specific moral character of a fittingness—the "externality" or independence of the perceived value with respect to our inclinations and desires, the perception of the value as belonging to a state of affairs that we can bring into existence, and the relevance of this state of affairs to our situation—may apply to any action that fulfills a situation, say an aesthetic one like the completion of a painting. We encounter here the difficulty of any situational and, indeed, empirical approach that attempts truly to *analyze* the *details* of moral phenomena: closeness to the phenomenon dulls the sharpness of the analytic instrument. This sharpness resides in systematic definition, which is precluded by the situational and by any empirical approach.

This sharpness is not precluded by a phenomenological approach in the continental sense of this term. Mandelbaum's study does not seem to be such an approach in spite of its title. This title—*The Phenomenology of Moral Experience*—leads readers to compare the work with accounts such as Nicolai Hartmann's, Strasser's, or Daniel Christoff's, which belong to a different category, namely the strictly phenomenological. To use phenomenological criteria in this sense does less than justice to Mandelbaum's treatise. The phenomenological approach does seem to be able to penetrate to the core of the moral experience, and in such a way as to lead to an axiological systematic. In this respect, Nicolai Hartmann's analysis of the threefold finalistic nexus[33] is a penetrating and precise account of situational "fittingness," one that seems apt to lead to the very threshold of a synthetic axiological framework and to fulfill the methodological mission of phenomenology: to lead to, or close to, the synthetic essence of the phenomenon.

Following up the analytic implications of traditional philosophical concepts, even in the slightly modernized dress of psychological terminology, is no adequate solution for the ethical problem; nor, for that matter, is it phenomenology in the usual sense of the word. It is not possible to take situational, contextual, or psychological structural categories for categories of *Wesensschau*. Since the primary requirement of ethical theory at the present time is methodological clarity, phenomenology and situationalism ought to be strictly distinguished. Only in this way can the insights and observations of either be given proper consideration.

In this respect the axiology of Risieri Frondizi[34] is more straightforward. It steers a firm course between psychology and phenomenology, seeing the locus of value in the concrete situation. Value and valuation cannot be radically distinguished. Neither can be explained merely psychologically, but both are combined in the situational context, where subjective and objective elements form one whole. Among the subjective elements are the past and present psychological life of the agent, the influence of the organism, and the social and natural texture. Among the objective elements are the properties of the thing valued that make it appear valuable independently of the psychological reaction of the valuer. These properties are what other axiologists have called the good-making properties; unfortunately, Frondizi does not give us the details of the relation between them and the value of the thing. The

fundamental axiological relation remains again in the dark, and the analytic concept "situation," although it gives us a valuable general framework for value, does not furnish us with the tools to penetrate the secret of this relation. However, the situational framework can be logically formalized, and this form would supply these tools.[35]

The culmination of ethical acuteness on a purely psychological basis is reached by A. L. Hilliard,[36] whose work is the most thoroughly spun out theory based on any particular empirical definition of value. Producing theories as detailed as this based on one particular value aspect may not be in accordance with the law of parsimony, but the fundamental theoretical difficulty appears in the progressive complexity of the work. Still, it brings profound insight into most different value phenomena—which proves that no matter what theory we select, valuable results cannot fail to appear if only we pursue it far enough and probe it deeply enough.

If "Hedonics" is ever to be, something like Hilliard's work must be its fundamental text. Hilliard does not attempt to argue that his form of hedonics is true. He simply formulates what he understands by it and proceeds within a rigid set of definitions to work out the implications of his formula. As such his is an exemplary work in analytic axiology. The fruitfulness of any value theory, in particular the intuition theory for which Hill "settles," will be demonstrated only by the intensive kind of work Hilliard has undertaken for hedonism. Only that theory will supersede analytic theories thus developed whose elaboration will lead to a synthetic system rather than to an analytic "system," even if ever so acute. Since the development of Moore's theory does lead to a synthetic system, precisely because "good" is analytically indefinable, it is methodologically superior to even as precise an analytic "system" as Hilliard's.

Hilliard's approach is clearly and precisely naturalistic. Values, value propositions, and value judgments are matters of fact, having the same metaphysical, logical, and epistemological status as any other matter of fact. As such, they are open to scientific investigation and control—"scientific" meant in the usual empirical sense. Neither values nor the avenues to value are externally established or prescribed; they are relative to the natures of people and other organisms, their needs, desires, and purposes. The basis of Hilliard's approach is egoistic psychological hedonism.

> Against so-called ethical hedonism, which contends that men *ought* to pursue pleasure as the sole or chief end, although perhaps they *do* not, psychological hedonism maintains it to be a given fact of human (and for that matter all organic) behavior that pleasure *is* the sole end pursued; against universalistic or altruistic hedonism, as for instance in most forms of utilitarianism (which asserts that it is primarily the pleasure of others which may and ought to be the end of conduct) egoistic (but not egotistic) hedonism holds that each organism does and can act only to the end of its own pleasure.[37]

On this basis Hilliard defines value as affectivity occurring in the relational contexture determined by the reaction of an organism to a stimulus object.[38] Utility is a character predicable of any object that was, is, or has the potentiality for being an intermediate means for a particular organism. Utility and value have no necessary relation to one another. An object may have utility and not be valued, or it may be valued but not for its utility.[39] "A spoonful of castor oil may have *positive utility* for a sick child, but in all probability will simultaneously have *negative value*—in the child-castor oil contexture there will occur distinctly negative affectivity."[40]

Utility is the secondary concept, Hilliard believes, value the primary. Both value and utility may be actual or potential. An object has *terminal* value when the affectivity determined by a reaction to it is for its own sake, that is, when the object is a last means to the end of affectivity. It has *instrumental* value when the affectivity determined by a reaction to it is for the sake of some consequent object.

Hilliard distinguishes strictly between intrinsic value and utility versus terminal and instrumental value—between, that is, axiology and teleology. The meaning of the term "good" derives from that of "value," specifically "positive value." "Good" is the general adjective predicable of all those objects that have occasioned, are occasioning, habitually do occasion, or probably will occasion positive affectivity when forming a relational contexture with any organism. Such objects are *good for* that organism. Just as value is always value *for*, so good is always good *for*.[41]

In formal axiology, "good" and "good for" must be strictly distinguished. The identification of the two forms, and thus the disregard of the logical distinction between them, characterizes Hilliard's analytic procedure and that of similar theories, as against the synthetic procedure of formal axiology. It shows up the relativity of this naturalistic kind of goodness. Good is relative and subject to a time reference. That which is good for one organism may be bad for another. No object is good for all organisms, or for any organism at all times.

The adjective "good" is not applicable to the universe, Hilliard believes, since the universe is a whole, and a relation can only exist between parts. Nothing can be said to be good for the universe, whereas the universe maybe said to be good for its beings. Thus, "good for" may be predicated *of* the universe, but it is not applicable to it.[42] Hilliard's statement is incorrect according to formal axiology. "*A* is good for *B*" means that *A* and *B* are in different classes but the intension of *A* is part of that of *B*.[43] Accordingly, any being in the universe can be good for the universe, but the universe can be good for a being only insofar as its intension is part of that particular being's intension. This being can be humankind, whose thinking encompasses the universe, and any being whose ontogeny repeats its phylogeny.

Hilliard is as explicit in applied as in general axiology. Aesthetic value is roughly coextensive with terminal or intrinsic value. The work of art is unique, and in a striking way. Take a glass of Burgundy that is enjoyed for its own sake. This "glass of Burgundy" is a complex of elements of experience—certain shades of red, a particular taste, a certain visual form from a certain point of view, coolness, and so on. Hilliard distinguishes 158 elements. All of these, apprehended in any combina-

tion, may, on any particular occasion, make up the aesthetic object being enjoyed, "a glass of Burgundy," so that there are 2^{158} - 1 or 3.6 x 10^{46} variations of such experience.[44]

Economic value is the instrumental counterpart of aesthetic value, roughly coextensive with instrumental value. It implies a belief in the valued object's utility. Economic utility is a species of the genus utility, the differentia being that the object of which it is predicated is actually or potentially an intermediate means to the production, distribution, or exchange of objects included in the denotation of wealth. Wealth is the class of all those objects that are actual or potential means to value. Hilliard extends this simple formula with amazing ingenuity into a wide ramification of value phenomena and thus fulfills in some peculiar way the task of value theory, as seen by Langmead Casserley.

Ethical value, too, is a form of instrumental value, being an intermediate means to the realization of a last means to positive affectivity. While the species "economic value" of the genus "instrumental value" deals with the object of wealth, ethical value deals with a different sort of object, namely, behavior that affects other individuals in such a manner as to induce behavior on their part, which in turn affects the original behaving organism. They have a socially reflexive aspect that economic values do not usually have. The farmer's ploughing has economic value whether or not any person is affected by it; but insofar as no other person is affected (for example, the farmer self-consumes his crops) the act has no ethical value, either positive or negative. The objects of ethical valuation may have utility. Honesty or courtesy, for example, are objects that, with reference to a particular organism, are useful as intermediate means to more direct means to the organism's satisfaction. Ethical objects are precisely those that possess this socially reflexive kind of utility, and this is the difference between economic and ethical value. Love is finding terminal value in another person rather than in a thing. Truth has both instrumental and terminal value, the first referring to truth about objects—"truth about"—the second to truth as an aesthetic object of intellectual construction.

The very excellence of Hilliard's work, the utmost care, ingenuity, and precision with which the basic analytic definition is developed, shows up glaringly the shortcomings of the analytic method. In having to take one material aspect of value as Value, such a theory must necessarily disregard an infinite number of value distinctions possible in other theories; and this infinity of disregarded distinctions is not made up for by the distinctions the theory makes, no matter how subtle and ingenious. On the contrary, the very number and subtlety of the distinctions made point up the infinity of distinctions not made, for any other definition of value by an analytic concept could make similar ones, but from this paradox—that the richer an analytic value theory, the more it shows up its poverty as a theory of value. Only a higher-level value language, a synthetic system, can deliver value theory. All the distinctions possible in material value theories ought to appear as applications of such a system. Consider, for example, how Hilliard glosses over the distinctions between propositions fundamentally so different as "God is good," "So-and-so is a good man," "This

is a good hammer," "Milk is good for babes," "It is good to avoid parallel fifths in strict counterpoint," "That is not good sportsmanship," "An overdose of sleeping tablets is a good way to commit suicide," "P-QR_4 is not a good opening move," "I bid you good night," "Cambridge has a good tutorial staff in Greek," "St. Julien is good with a roast, but Pommard is better," "Too much of a good thing," and "Good fences make good neighbors."[45] Axiology ought to define the exact valuational distinctions between these propositions rather than try to erase them.

Missing in Hilliard consciously and on principle is an account of the relations of his system to other systems of axiology. For such an account a formal language of value, a meta-axiology, would be needed. Hilliard does discuss the relation of his axiology to theories of specific values such as ethical, aesthetic, economic, and so on, by defining these specific values in terms of his general definition of value.

Works that deal with, say, ethical value, must in turn define this in terms of some existing axiology. But existing axiologies are material, and to define ethical value in terms of any material term, any satisfaction, does not essentially further the value enterprise. Doing so presupposes an account of the naturalistic fallacy and whether, and in what respect, the theory commits it or not. In this respect Hilliard's theory is not so well founded as other naturalistic theories, for example, G. F. Hourani's.[46] A naturalist of the incisiveness of Hilliard cannot say much more about the naturalistic fallacy than that it fails to establish itself as a fallacy, and this has already been said.[47] Attempts at refining the fallacy on a level less incisive than Hilliard's and Frankena's are of doubtful value and cannot fail being at least as fallacious as those more incisive attempts. Hourani, for instance, confuses the *logic* of definitions with the *psychology* of understanding them.[48] Frankena's misunderstanding of Moore's fallacy was mentioned in Chapter Four. It may be better not to say anything about the fallacy; for a naturalistic theory to say something about it does not necessarily mean that the theory is methodologically better founded than one that says nothing about it. Hourani's theory, which is on a much less incisive level of analysis than Hilliard's, although it says more about the naturalistic fallacy than Hilliard, may not, after all, be better founded than Hilliard's.

Hourani's theory is of the simpler kind. He merely combines two old standbys, "happiness" and "justice," and defines goodness as "happiness justly distributed." Compare Brand Blanshard's definition combining "satisfaction" with "fulfillment" as discussed in Chapter One. But these are vague analytic concepts. The theory pays the usual homage to the talk of the man in the street—more specifically, "ethical speech in the Western world, more particularly the English-speaking part of it;" but the logical rigor and the axiological results are inadequate in the light of my synthetic norm and of an analytic standard such as Hilliard's. Hourani confuses, for example, goodness with good things and analytic truth with spontaneity of insight.[49]

Hilliard's axiological work uses the method of analytic precision and applies it to a naturalistic content. This will be the case in all naturalistic works that truly realize their program. So far, Hilliard's is the only complete work of this kind, but there are approaches in the same direction: proposals for the application of the

method of analytic precision—often called "scientific"—to axiological objects conceived as objects of natural science. Here belong essays of Viktor Kraft, F. S. C. Northrop, Anatol Rapoport, Donald Davidson, *et al.*, and Richard Braithwaite.

Viktor Kraft[50] attempts a logico-psychological analysis as a foundation for "scientific value theory." He applies logical analysis and empirical examination to value phenomena in order to avoid both undefined absolutism and unlimited subjectivism. As do all cognitivists, he seeks the differentia that all phenomena of value—moral, aesthetic, economic, and such—have in common. His result is that all value phenomena contain a factual and an axiological element. The second cannot be determined logically, only *psychologically*; pure value is a logical ultimate that cannot be reduced to another concept. A value judgment contains as a characteristic element an attitude toward an object. Its axiological character lies not in this attitude but in the command to take this attitude. A value judgment characterizes an object with respect to the attitude that is to be taken toward it; the value of an object is a "signal for an attitude." This theory, then, combines in an ingenious manner the normative and the psychological aspects of valuation. Just as Brand Blanshard combined satisfaction and fulfillment, and Hourani combined happiness and justice, so Kraft connects normativity and attitude.

All these are analytic concepts, and *any* two or more of them can be combined to form a new analytic value theory. We could combine satisfaction, happiness, and normativity or fulfillment, justice, and attitude; in short, $2^n - 1$ different value theories are possible, where *n* is the number of concepts like "satisfaction," and "fulfilment" that have at one time or another been identified with value. None of these theories makes any methodological advance, for they are all analytic and hence do not provide a standard for judging among themselves. Only a synthetic axiology can be such a standard. In a formal axiology all such combinations ought to appear in a systematic pattern, as I explained earlier in discussing A. C. Garnett's combination of normativity, reasonableness, and being the object of a favorable attitude.[51]

There is, according to Kraft, no absolute standard to decide which attitudes ought to be taken universally toward any possible object; no standard, thus, makes value judgments universally valid or invalid. Value judgments are *factual* rather than axiological; they do form a rational system; in so far, logic does serve as a standard for the validity or invalidity of value judgments. Since the factual aspect is always connected with an axiological one, a logical determination is at the same time an axiological one. What it is in detail depends on the exact nature of the connection between the logical and the axiological aspect, and since this is not logically determinable, the exact nature of the connection cannot be either. "In the face of ultimates the clarity and precision ceases with which value judgments can be judged as valid or invalid."[52] The analytic nature of the theory ends in ultimate vagueness. The rational system of value judgments is merely a hypothetical-deductive one, the axiological contents of which are undetermined; they may be those of egoism or altruism, of humility or superiority, of negation or affirmation of life. Still, one class of value systems has a special claim, namely, those that originate directly with human

culture. They are the conditions of persons as cultural beings and are in so far universal. What they are in detail depends on the culture in question. Kraft's axiology culminates in a cultural matrix resembling Northrop's.

F. S. C. Northrop's position, developed over several years,[53] is that values are certain *im*plications and *ap*plications of natural science. Simply expressed, moral value, for example, concerns humankind, and human beings are what natural science says they are. Thus, the good for human beings depends on what natural science says. The questions, then, are: What does natural science say, and how does it say it?

Unlike Abraham Edel, Northrop starts at the very core of the scientific method, Galileo's distinction between primary and secondary qualities. He expands this into a distinction between two components of cultural life, the theoretic and the aesthetic. The relation between these components was for Galileo and Newton "three-termed," due to the irreality of secondary qualities. The three terms are, respectively, (1) the material object in the "true, real and mathematical" space and time of the theoretic component, (2) the observer, and (3) the apparent sensed qualities in the apparent relative sensed space and time of the aesthetic component.

For Northrop the relation is two-termed and consists in the correlation of scientific theory (the theoretic component) and empirical observations (the aesthetic component). Not only scientific objects but any object known presupposes this relation, called by him "the epistemic correlation." In the case of everyday objects the theoretic component is a set of Kantian or other categories. Thus, "to be any complete concrete thing is to be not merely an immediately experienced, aesthetically and emotionally felt thing but also to be what hypothetically conceived and experimentally verified theory designates."[54] This epistemological view has axiological consequences.

As far as moral good is concerned, since human beings and nature appear different depending on the epistemic correlation in different cultures, also the good for persons—and the good person—appear different depending on this same correlation. The idea of good depends on the idea of human being, which depends on the idea of nature, which in turn depends on the epistemic correlation characterizing the particular culture. In a formula, "good for culture" is what is true for nature in that culture. The word "good" is nothing but a name for the set of elementary concepts used to conceptualize and integrate experience. It is not a concept within a person's philosophy; nor is it a concept referring to an inductively given datum in a person's experience. Instead, it is the name for all the other concepts of knowledge when they are considered in their interrelation and unity, not only with respect to natural science and its verifications, but also with respect to their implications for the fulfillment of human nature, when applied to an act of human behavior and to human relations. The class designated by the idea of the good, as Northrop puts it with E. Vernon Arnold,[55] is "a class which includes all classes." It is the word used to designate the set of basic assumptions used in a person's philosophy. Moral philosophy must be so constructed as to exhibit these basic assumptions, that is, as a deductively formulated theory.

Any such theory, Northrop holds, has in its postulates all its basic common denominator concepts—the primitive concepts that are taken as undefined and used to define all other concepts in the theory. This set of primitive concepts and postulates is very small. Newton's can be put on one page. The definitions of its eight most important concepts can be put in sixteen lines. Nevertheless, this simple minimum brought under itself the motions of the planets, the falling of bodies, the pendulum, the lever, the balance, the gyroscope, and the rest of the universe.

This method applies to normative theories as well. Needed is

> a philosophical articulation of the conception of man and the universe which contemporary empirical knowledge of man and nature entails, and the creation of a new humanism in terms of the new idea of the good which this more adequate scientifically grounded philosophy defines. That conception of good conduct and the good state is the correct one, valid for everybody, which rests upon the conception of man and nature as determined by immediate apprehension (with respect to the aesthetic component) and by the methods of natural science (with respect to the theoretic component).[56]

Following this naturalistic criterion, human beings will learn to know themselves and be true to themselves, for natural science defines human beings for themselves. Ethics must become the application of verified natural philosophy. Ethicists today must become the interpreters of Einstein and Schrödinger, and of their epistemic significance, just as in Newton's time they had to be Newton's interpreters; and ethicists must apply what they have learned to personal behavior and social relations. Ethics must be an art rather than a science, for the science is that of the natural philosophers. All the ethicist has to do is to take over and apply it. Ethics *is* that natural science thus applied, and natural science thus applied *is* ethics.

This is, in a grandiose manner, the commission of the metaphysical fallacy. How anachronistic the whole scheme is may be seen from the fact that it is, *mutatis mutandis*, the same as that of the Greek Fathers and of much of medieval education.

> Philosophy was conceived primarily as a *philosophia perennis* compiled from Platonist, Aristotelian and Stoic sources and divided into physics, ethics and dialectic....Physics was theoretical philosophy, the study of a hypothesis that could account for an ordered and intelligible universe. Ethics was a practical philosophy, *the application of this hypothesis to human affairs*....For centuries this division was to provide the framework for the speculation of Greek Christian theologians....Their theology is the study of an underlying explanation of an intelligible and ordered nature, their moral theory is its corollary.[57]

To apply this scheme, ethicists must, beside the theoretic component, also know the aesthetic component of human nature. This component is not *completely* indeter-

minate; the theoretic component gives it *complete* differentiation but does contain a differentiation in itself; specific aesthetic qualities vary from person to person and from circumstance to circumstance. In addition to the good that is valid for everybody, the theory also provides for relative goods that do not hold for everybody. It guarantees the richness and variety of life.

Northrop's is a fascinating, rich, and suggestive theory; like Hilliard's, it goes as far as an analytic argument can possibly go. Yet, as an analytic argument it glosses over fundamental logical distinctions; the most essential is that between the *synthetic nature of the formal postulates of a science and the analytic nature of the material postulates of a culture.* Due to this oversight, Northrop's concept of a "deductively formulated theory" is undefined, and his analogy between the system of science and the "system" of a culture lacks validity in its most fundamental aspect. Rather than stressing the similarity between philosophy and science, he should have stressed their logical difference. In this way, and in this way alone, could he have given valid directions for the scientific reconstruction of moral philosophy. His fundamental concept of "epistemic correlation," is too vague to be scientifically useful; it is an analytic rather than a synthetic concept. Withal, Northrop comes closest to my own point of departure; indeed, his is the same as mine, the difference between primary and secondary properties. His theory fails because he fails to analyze this distinction formally and scientifically rather than analytically and philosophically. In failing to analyze the theoretic component truly theoretically he failed to see the true theoretic importance of the aesthetic component, and he gave this component an importance that is theoretically irrelevant. He also overlooked that his investigation ought to be a theoretic, not an aesthetic, one. He confused the content of his inquiry with its method—the fallacy of method—and blurred his subject matter aesthetically instead of illuminating it theoretically. Galileo's and Newton's method was correct and did not need to be amended to give the aesthetic component its due emphasis; it ought to have been *applied to* this component. The epistemic correlation is not twofold; neither is it threefold in the Galilean-Newtonian sense; it is fourfold in the sense described above:[58] starting with analytic abstractions from sense material, it passes through essential *Wesenshau* (axiomatic identification), to synthetic construction, and then to an application of the system so constructed to the original material thus newly reconstituted. If Northrop had analyzed the relation in this way his "good" would have coincided with mine and become a logical rather than a natural relation. His theory suffers from the vagueness of an analytic basis. So do its applications.

Northrop applies his theory in many ways; for example, the systematic mediator between the character of the natural and that of the moral laws of a civilization are the juridical laws. Like Hilliard, he fulfills part of Langmead Casserley's program of a humanly relevant theory of value, but the relevance is the inadequate one of analytic concepts, not the adequate one of synthetic concepts. His applications are validly true only if his basic assumption is correct, that human nature is what natural science declares it to be. Should natural science and the epistemic correlation be found irrelevant to our knowledge of our own nature, Northrop's philosophy of value

would likewise be irrelevant. The synthetic analysis of the epistemic relation leads to the results that natural science *is* irrelevant to the moral nature of human beings, and that an entirely new science, formal axiology, must be created to account for this nature—a science in which the epistemic relation has other aspects than natural science.

While Northrop sees the essential phenomenon of moral philosophy in the relation between theory and the phenomena it accounts for, Rapoport, Davidson, *et al.*, and Braithwaite see it in one phenomenon, that of choice or preference in human situations. They all apply scientific methods to it: Rapport the operational, Davidson, *et al.* the axiomatic, and Braithwaite the mathematical method.

Rapoport[59] proposes an "operational ethic" that rests on the pragmatic premise

> that rules of conduct and goals should not be stated *a priori* but should emerge as the result of the best method of inquiry at one's disposal. Therefore the goals (the 'good,' the 'ultimate ends,' *etc.*) of this ethics cannot be explicitly stated. ...There is always a possibility that improved methods of inquiry will reveal more desirable goals....Just as there is no absolutely final act in science, so there is no absolutely supreme good in operational ethics.[60]

Values may be *postulated* like scientific hypotheses. Some of these values may be supported by success in their application, others not. Values are the invariant needs of human beings. Ethics should be an inquiry into what sort of conduct can satisfy these needs most effectively. Operational ethics leans on the sociology of knowledge and modern psychiatric theory. It is an empirico-scientific inquiry. The chronic question, "Can science be applied to ethics?" is answered from the operational point of view by saying that basic invariant human ends are *not* subject to ethical discussion, which concerns choices, because we have *no choice but* to pursue them. They can be determined by scientific investigation, just as physiological means are so determined. The method of reducing ethics to science is, then, to reduce the number of ends we are choosing to a minimum. The ultimate invariant ends are the final object of ethics, but in arriving at them ethics ceases to be ethics and becomes natural science. Rapoport, by a twist of the naturalistic argument, arrives at a positivistic conclusion.

2. Naturalistic Formalists

While semi-cognitivists are sensitive to the axiological nature of value but lack sensitivity for its cognitive nature, naturalistic empiricists are sensitive to the its cognitive nature but lack sensitivity for the axiological nature of value. The semi-cognitivists sacrifice intelligibility of value perception to its sociological character; the empiricist cognitivists sacrifice understanding of its axiological character to its intelligibility. In neither case does the value realm become understandable *as such.*

The naturalistic formalists advance in the direction of genuine axiological knowledge by a more sophisticated understanding of the nature of cognition. They see that method is, if not more important, at least as important as content. Even though most of them still tie value to some analytic concept, they elaborate this concept in a formal rather than a material and naively implicative manner. Though the "formal" nature of their "systems" is still analytic, tied as it is to the analytic concept in question, their emphasis on method at least *begins* to point toward a genuine formal system rather than material axiological system.

Donald Davidson, J. C. C. McKinsey, and Patrick Suppes[61] use an ordering principle opposed to Rapoport's. Instead of whittling down the number of possible ends to avoid contradiction among them, they endeavor to find a universal frame of reference that will account for all kinds of possible preference processes. They follow the axiomatic method of science. Their value theory is a formal one, and, since it is based on a naturalistic phenomenon, that of choice, it is a naturalistic formal one. Choice is for them not a subject matter of natural science itself, as it is for Rapoport, but of a frame of reference *sui generis*, produced *ad hoc* for the purpose at hand. This frame of reference, therefore, is not constructive or synthetic in the sense that it defines its subject matter—choice—autonomously, as do theories in physical science, but abstractive or analytic, elaborating the subject at hand in an axiomatic or, if we reserve the term "axiom" for synthetic systems, a theoretical manner. They do not identify an element of logic with value, defining value synthetically in terms of this element, as Galileo identified an element of mathematics, conic sections, with the path of a projectile and defined this path synthetically in terms of this element. Rather, they define value analytically, as preference, and then apply the logic of relations to preference as a relation. Even if we disregard the analytic definition of value as preference, we do not have here a creative-constructive identification of preference with an element of logic that has never yet been connected with it, but we have the usual application of the logic, fitting the term "preference" to it. We thus have the formal elaboration of an analytic concept. The result is an empirico-formal theory, similar in method to, though far less rich in content than Hilliard's, but it is not an *a priori* formal theory. Such a formal theory would be non-naturalistic, of the kind to be discussed in the next chapter.

Davidson, *et al.* take it as the general function of "formal" value theory to provide "formal" criteria for rational decision, choice, and evaluation. Just as logic can be used to define necessary formal conditions for rational belief, so value theory defines "necessary formal" conditions for rational choice. These authors do not sufficiently emphasize the difference between the synthetic formality of a logical system and the analytic "formality" of a material theory to whose analytic concepts formal logic is *applied*. The events, acts, objects, or goals to which value is attributed are the subject matter of their theory, along with the ordering relations of preference, equivalence in value, and difference in value. Their theory attempts to establish a "rational preference pattern," a pattern of preference that follows the rules of transitive relations, and to discuss the problem of measuring preferences. Of the four

possible measuring procedures, by (1) absolute scale (applied to the cardinality of classes), (2) ratio scale (mass, length), (3) interval scale (longitude, time), and (4) ordinal scale (Beaufort wind scale), the authors believe preferences to be measurable by the third scale and "rational preference ranking" by the fourth scale. The measurements in question are the weakest of the scales possible; what they measure is *value* only if value is identified with preference, which means committing the naturalistic fallacy. Formal axiology measures value *directly*, and by all available scales.[62]

In so far as Davidson's *et al.* theory is axiomatic, even though theoretico-axiomatic rather than systemico-axiomatic, and because in such an axiomatically formulated theory its primitive and defined notions have a meaning only as part of the theory, their approach would eliminate for value theory the need to depend on the inadequate resources of ordinary language. This would help overcome the frustration that results from an attempt to explicate the basic value concepts in isolation from a coherent theory. But it does not lift value *theory* to the level of value *science*, and it does not convert the analytic basis of the theory into a synthetic one. The theory is a kind of naturalistic meliorism. While non-naturalistic meliorism is based on the synthetic relation of bitterness, naturalistic meliorism is based on the analytic relation of preference. On its three logical forms, *X is preferred to Y*, *Y is preferred to X*, *X is equal in preference to Y*, patterns of preference can be constructed which, by using probability considerations, may be built to higher and higher complexity. The value of such a theory, if fully developed, would be the same as that of Hilliard's: its very complexity and ingenuity would show up its axiological insufficiency.

The reason is the "intrasystematic arbitrariness" discussed above in Chapter Two, Section 2, C. As a result, the "logic of preference" may lead to various kinds of interpretations, the *axiological* nature of which is doubtful. In the case of Davidson and Suppes[63] the outcome is an experimental approach to decision making.

In the case of G. H. von Wright[64] we have what he calls an axiological treatise considered as a part of the "logic of value." In the course of his "axiomatic"[65] approach, von Wright defines "good" and "bad" in terms of preference[66] and reaches, among others, the result that "good is better than bad,"[67] a result which he rightly says is no "mere triviality." Von Wright's definitions of "good" and "bad" may be called exact naturalistic translations of the non-naturalistic definitions of Edwin T. Mitchell. Sören Halldén's *On the Logic of "Better"* seems to be a non-naturalistic meliorism like that of von Wright, but the "philosophical analysis" of the B-relation in Halldén's *Emotive Propositions* is naturalistic.[68]

If von Wright's conclusion, among others, that "good is better than bad" had been reached by non-naturalistic meliorism, it would be difficult to say why the procedure is wrong and why "better" ought to be derived from "good" rather than "good" from "better." At least, an axiological fallacy would not be involved. The decision would either have to be made on the basis of the considerations in Chapter Two above, or on the facility or difficulty with which the two axiologies could be converted the one into the other, or the result of the mutual application of the one to the other, in particular the application of the criteria for betterness contained in either

of the axiologies to the other.[69] If the results were inconclusive, that is, one axiology is as good as the other and neither is better than the other in their own terms, then recourse would have to be taken to what Bertrand Russell calls "logical common sense,"[70] which comes down to the psychologico-aesthetic criterion of Gestalt closure and *Prägnanz*.[71] In this case, differences of opinion may prevail for a long time, as was the case in the Ptolemaic-Copernican controversy.

But when it is a matter of a naturalistic melioristic theory, that is, one of preference rather than of logically defined betterness, the situation seems very much clearer, both theoretically and practically. Theoretically, that is, methodologically, the interpretation of the *logical truth* that *A* is better than *B*—defined, say, by "*A* has more of the class properties than *B*"—as the *empirical act* of preferring *A* to *B*, is the same as the *Umdeutung* of the logical truth that 4 > 3 is the *stating* that this is so. It is an *Umdeutung* of syntactics into pragmatics. To hold that 4 > 3 *because* it is *stated* to be, or *because* a stick of 4 meters length is held to be larger than one of 3 meters, is a reversal of the methodological relation between *explicans* and *explicandum*, between variable and range, between number and numeral, which constitutes the fallacy of method. As William Wollaston made clear, an act is right or wrong because of the true or false proposition it affirms or denies, not vice versa, or by itself alone.[72]

This methodological reversal is G. H. von Wright's procedure. His logic of preference does not deal with what he calls extrinsic preference, that is, that kind of preference which has its *ground* or *reason* in a *judgment of betterness*,[73] but on what he calls intrinsic preference, which is preference for no reason except that what is preferred is liked. This kind of preference is *constitutive of* betterness and "a form of betterness." Preference is undefined; it is merely an act; but in a developed axiology, both kinds of preference in von Wright's sense, extrinsic [74] and intrinsic,[75] must be defined. For von Wright, the "logic of preference" is the combination of possible such acts by handling the relation of preference between two states of affairs *p* and *q*, for example, *pPq*, (the state *p* is preferred to the state *q*) axiomatically[76] in accordance with the Propositional Calculus. Moreover, the preferences in question are unconditional, which means that "any given state of the world, which contains *p* but not *q*, is preferred to a total state of the world, which differs from the first in that it contains *q* but not p, but otherwise is identical with it."[77]

The theory is of limited applicability, and it is clear, practically, that it cannot be used to decide, for example, why it should be preferred to a formal axiology in which "better" is defined in terms of "good," and preference in terms of "better," nor, *vice versa*, why the second theory should be preferred to the first. It contains no norms for preference and no norms for comparison. If we inquire into the nature of norms in the sense offered by von Wright in *Norm and Action: A Logical Enquiry* and *Varieties of Goodness*,[78] we are forced into the discussion of the relation between "good" and "ought," as is given below in Chapter Eight, Section 2.

Von Wright leaves us with a calculus for a limited kind of acts meaning "*roughly* the same as what, in ordinary language, we mean by 'to like better (more).' An (intrinsic) preference, one could say with the *Oxford Dictionary*, is the 'liking of

one thing more than another.'"[79] And *de gustibus non est disputandum*—at least not in von Wright's logic of preference (as against a formal axiology, an *estimativa*, in the sense of Ortega y Gasset).

Thus, the formula apparatus is based on too thin a base, and this base is at bottom an analytic concept, the kind of concept appropriate for philosophy but not for science, mathematics, or logic—that of "liking." To erect on this base a synthetic apparatus is a procedure that is illegitimate. Withal, von Wright's logic of preference is a significant advance into the largely uncharted realm of the logic of value. It would be an easy thing to strip von Wright's calculus of its "philosophical explanations," in the sense of Sören Halldén, and incorporate it in a truly formal axiology. As for the coincidence of some of its definitions and results with those of non-naturalistic systems, Mitchell's meliorism and formal axiology itself demonstrate that once the logical apparatus is applied, even arbitrarily in the sense defined, to a narrow methodological basis, significant results are bound to appear that show up the intrinsically logical nature of the value field.

While von Wright applies the propositional calculus, and Davidson, *et al.* apply statistical considerations to value problems, Richard D. Braithwaite[80] applies value considerations to statistical problems. He believes that such considerations determine to some extent the choice between statistical hypotheses, and that the ethical "irrupts" into inductive logic. He applies probability calculations to the problem of choice and preference.[81] His example is a situation of two neighbors, Matthew and Luke, one a jazz trumpeter the other a classical pianist, whose performances are a source of mutual discord. He shows with the help of game theory how arbitration between the two is possible. If they are *not* prepared to co-operate, the most sensible non-competitive and the most prudent competitive course for each of them can be worked out; if they *are* prepared to cooperate, the theory provides the fairest solution for them both.

The argument rests on the idea that the logic of a general collaboration situation is isomorphic with the geometry of a parabola. This geometry is an envelope of lines (a line parabola or parabola-scroll), uniquely determined by the four pure strategies available to the collaborators, namely, for Luke to play alone, for Matthew to play alone, for neither to play, or for both to play. The importance of the parabola arises from the fact that it has a definite direction, that of its axis; this direction, which is not arbitrary since it arises naturally out of the intrinsic logic of the situation, gives a method of comparing the preference scales of the two collaborators. "And if this can be done, it will be possible to measure (by the probability-combination-indifference method) the relative advantage Luke has over Matthew, or Matthew over Luke, for the different possible outcomes."[82] Braithwaite calculates that the fair decision would be to award to Luke 17 out of 43 evenings and to Matthew 26.

Thus, in any two-party dispute, where the ratios of preferences can be determined, the theory of games can dispense exact justice. This gives the axiologist the role of an arbiter similar to that of a judge. If Luke and Matthew should come to consult Braithwaite as to how they should act in their specific situation, the procedure

would be as follows. He would first tell them that he could not give them any advice unless they provide him with the relevant data, giving sufficient information about their preference for the alternative possible outcomes of their eventual collaboration, and for probability combinations of these alternative outcomes, to enable him to measure each of their preference scales separately. He would then do "some simple mathematical calculations," as a result of which he would make the specific recommendation mentioned, explaining in detail his reasons and hoping that "the sweet reasonableness of [his] parabolas" would convince them. This procedure, Braithwaite believes, would be giving an "explication" or "rational reconstruction" of the concept *sensible-prudent-and-fair* in collaboration situations, which up to now has been used loosely by common sense, and which is now being tightened up by a precise method. He feels he would make "a small contribution toward realizing Condorcet's dream *éclairer les Sciences morales et politiques par le flambeau de l'Algèbre*."[83]

Here we have a significant advance in the direction of scientific, that is, synthetic cognition of value phenomena. Braithwaite's method is truly scientific in the sense defined: he *discovers* an isomorphism between a value situation and an element of a formal pattern that has not been seen before which makes synthetically precise previously analytic concepts such as "sensible," "prudent," and "fair." He *constructs* a truly axiomatic system and *applies* this system to the situation for which it was invented. Unfortunately, this situation is not the situation of *value* but that of a *particular* value, choice; hence, the synthetic procedure is too limited to serve as the basis for a general formal axiology. Yet, in such an axiology Braithwaite's pattern ought to find a place, just as N. Oresme's pattern found a place in Galileo's general theory of motion[84] and Galileo's own pattern a place in Newton's general theory of gravitation.[85] Observe that the mathematical origins of natural science in the middle ages referred to intensions rather than extensions, to qualities rather than quantities.

The largest advance possible on the side of naturalism in the direction of synthetic knowledge of value would be the proposal not to use any content of a science nor any content of a value theory but to apply the *mere method of science to value in general*. But this would transcend the framework of naturalism and be a non-naturalistic formal theory. The farthest advance in this direction possible within naturalism would be the proposal to apply the mere method of science to a valuational content. Such a content would still be naturalistic in the sense of not being Value itself, but it would not be naturalistic in the sense of being an object of natural science, as is Rapoport's "choice"; it would be an object of axiology, as is Braithwaite's "choice." But it would not be *the* object of Axiology, Value itself. It would be "naturalistic" in the formal sense but not naturalistic in the material sense. Unfortunately, these two senses of the word, contained in Moore's "naturalistic fallacy," have never been clearly distinguished. "Pleasure" is a value term, but it is not *the* term "Value." To identify it with Value is a confusion of species and genus. "Evolution," is a factual, not a valuational term; to confuse it with Value is a *metabasis en alto genos*, a confusion of two genera. The first is the formal confusion and the second

the material confusion contained in Moore's "naturalistic fallacy." Both are moral fallacies in my sense, but the second is, in addition, the metaphysical fallacy.

The farthest advance possible within naturalism toward formal knowledge of value is formal naturalism, or naturalistic formalism, in the widest sense: the *form* in question being the scientific method itself, not a specific section of it as in Braithwaite and similar writers.[86] I will discuss views of this nature in a scale of decreasing precision of the "scientific" method proposed.

Most precise in his demand for a value science along the lines of natural science *method*, but not natural science *content*, is Henry Margenau. Two earlier articles of Margenau, "Scientific Ethics" and "Remarks on Ethical Science"[87] are clearer than his *Ethics and Science*,[88] which is based, from my point of view, on committing the fallacy of method, in particular the normative fallacy—the postulates of ethics are supposed to be imperatives, and these are supposed to correspond to the postulates of science, like Newton's law of gravitation—precisely the fallacy against which Einstein warned.

As explained in Chapter Two, ethics is a language that analyzes moral experience, but it does not moralize. The imperative is not part of ethics; it is part of moral experience. It belongs to moral, not to ethical language. Ethics deals with moral imperatives; it does not enounce them. Those who enounce them—Confucius, Buddha, St. Paul, Luther—are preceptors of the experience, prototypes to be followed, and as such objects of Ethics—even though, in a different role, they may also be ethicists. But the "imperative" of the system of Ethics is not that with which it deals. Its "imperative" or "obligatory" nature arises, like that of any science, by the synthetic *a priori* necessity in virtue of which it is a *system*.

The result of these confusions of levels of value discourse is that a number of vital distinctions are not as clearly made as they might have been, such as those between imperative and norm, formal and material norm,[89] value and goal, knowledge and method (analytic and synthetic method), and ethics and axiology; and the difference between secondary and primary qualities is taken as a material rather than a formal one. All this obscures the basic soundness of the approach. Moreover, there is a certain unfamiliarity with ethical theory and its terminology, for example, the use of the words "natural" and "necessity" (the first being identified with "natural" in "natural science," the second with normativity),[90] so that the greatest advance in ethical theory, Moore's distinction of natural and non-natural properties, is regarded as one of the features that show ethical discussion as "descended to the lowest intellectual levels in philosophical debate."[91] Finally, *Ethics and Science* drops the discussion of the relation between axiology and ethics, not because the author does not hold it any more but, as Professor Margenau told me, because it is obvious. Thus, although the parallelism between axiom and postulates and between verification and validation is ingenious, it lacks a foundation and hence gives rise to the fallacies mentioned. For these reasons I prefer to discuss the first-named writings, where the author's basic approach appears in pristine clarity.

If ethics and, in general, value theory have a methodology at all, it must be similar to that of natural science, for this is the only method of precise knowledge we have. Yet, it is impossible to deduce by logical sequence the norms of any ethics from the contents of a science. Only the primary structure of science can manifest itself in ethics, and it should do so if that discipline is to partake of the vitality and self-corrective power of true science. By "science" Margenau understands, as I do, exact or deductive science, restricting his considerations to disciplines that have a mathematical or logical structure.

Logically, deductive science has three phases: the postulational, the explicatory, and the verifying. Postulates are human creations that are valid if experience justifies their consequences. Scientific postulates are norms of thought which, when fully formulated and clearly understood, are accepted for methodological purposes as true and consistently adhered to with utmost care in all deductive procedures. Having clearly formulated its basic principles, science is needed to appraise them, to select the worthy from the base. We may even go further and claim that norms can be the generators of new values, just as new theories may call for new observations. It seems clear that all approaches that narrowly seek out existing values and try to reach inductively from them a moral code are futile. Norms of ethics, according to this view, should be respected without exception, as are theories in science. Their validity should be absolute even though, like scientific axioms, they would change in time.

Henry Margenau's is a suggestive program for a scientific ethics, but it does not emphasize sufficiently the difference between inductive generalization and deductive systematization. This is remedied in his *Ethics and Science* where the discussion of axiology is dropped; so his argument still suffers from insufficiency. This difference is all-important in value theory today, and in this respect a simplistic analogy between the method of *today's* science and axiology breaks down. The analogy must be between the *origins* of natural science and axiology. Today science is "playing both ends against the middle"; it can afford to do so because Galileo established the empirico-deductive frame, and hence the rules of the game. But, as previously explained, it makes all the difference in the world whether a science is to be newly established and its frame of reference creatively determined, or whether refinements take place *within an established frame*. There was a difference in *kind* between Aristotle and Galileo, but only one in *degree* between Galileo and Newton (or Newton and Einstein).

Axiology today must take the step from Aristotle to Galileo; hence, the debate in ethics and value theory *cannot* be the same as in science. Axiology cannot yet play both ends—the practical and the theoretical, the inductive and the deductive, the material and the formal, the analytic and the synthetic—against the middle because *one end*, the theoretical (deductive, formal, synthetic) *is still missing.* Only when it is supplied, as is done in formal axiology, can the scientific game in the sense of Margenau be played. Until then, there *is* no axiological science, but only axiologlcal philosophy—practical, inductive, material, and analytic, as was alchemy. Not to see this clearly ensnares us in fallacies. Margenau confuses analytic ethical principles,

such as the Ten Commandments or the Golden Rule, with synthetic axiological principles. Only the second, but not the first, can serve as axioms for the science of value. For a similar endeavor and a similar failure, see Jacques Rueff.[92]

In spite of all this, Margenau's view is in the great tradition of natural-moral philosophy, from Plato to the rationalists, to Immanuel Kant, Ernst Cassirer, and Albert Einstein. That this view lost its verve in the subtleties of G. E. Moore is not due to lack of intellectual penetration but, on the contrary, due to it. Moore refined ethical language to such a point that the next step, as John Maynard Keynes observed,[93] could only be mathematical, the *science* of value. Unlikely as the combination would appear to both, Moore and Margenau echo the voices of the great rationalist tradition—as does any scientist in our time, such as Einstein.

Descartes, Leibniz, Spinoza, Hume, even Berkeley, shared this tradition: for them, there is no difference in the rationality of natural and of moral philosophy. Leibniz, in particular, had exactly the same vision as the one here under discussion and came to the same results concerning a science of value. The mathematical method is only a specific kind of a general logical method that could be applicable to ethics, metaphysics, and the rest of the humanities, as mathematics is to natural science. Arithmetic and algebra only give us a glimpse of that general method. "It is as if God, when he bestowed these two sciences on mankind, wanted us to realize that our understanding conceals a far deeper secret, of which these are but the shadows."[94] It is the secret of a "true method," a universal *logical* calculus, applicable to morals as well as to nature, which is

> a thing hitherto quite unknown, and has not been practiced except in mathematics.... If those who have cultivated the other sciences had imitated the mathematicians, at least on this point, we should be quite content, and we should have long since had a secure metaphysics, as well as an ethics.[95]

The logic Leibniz had in mind and partly developed is the kind of intensional logic that serves as basis of formal axiology.[96] Leibniz, at the beginning of natural science, saw more clearly than Margenau and even, in a way, than Einstein at the present culmination of natural science, what is implied in the formal nature of ethics as an axiological science: that its postulates must not be empirically taken from its body of existing rules—such as the Ten Commandments, the Golden Rule, the preservation of life, and the like—as both Margenau[97] and Einstein[98] believe; but that they must be deductively arrived at by applying a formal system to the specific subject matter of ethics, in exactly the same way that the postulates of physical or any other natural science are arrived at by applying mathematics to the specific subject matter of that science. The crucial problem of ethics is the derivation of its postulates from a formal superstructure, and hence the creation of this superstructure.

Albert Einstein saw well the nature of the problem, even though he did not see clearly its solution, which lies in the formal analogy between moral and natural science.

> What is the origin of such ethical axioms? Are they arbitrary? Are they based on mere authority? Do they stem from experiences of men, and are they conditioned indirectly by such experiences? For pure logic all axioms are arbitrary, including the axioms of ethics.[99]

But, as we saw in Einstein's account of the scientific method, the arbitrariness of axioms is only apparent. Liberty of choice here is of a very special kind; it is not that of the fiction writer, but that of the puzzler who hits upon the "*one* word which really solves the puzzle in all its forms."[100]

This *one* word in ethics is that spoken by G. E. Moore, in my reinterpretation. Whether it really is the true word is a matter to be decided by the practical efficiency and efficacy of the ensuing theory. For, say both Einstein and Margenau, "ethical axioms are found and tested not very differently from the axioms of science. Truth is what stands the test of experience."[101] The meaning of truth in ethical theory must be the same as in scientific theory, namely, corresponding to the three levels of science: (a) the inherent consistency of the system, (b) its applicability to the phenomena that are the subject matter of the science, and (c) the faithful agreement of the results of this application with actual experience. In terms of the science of ethics, this means that ethical (and moral) truth consists in (a) the inherent consistency of the system of formal axiology, (b) its applicability to ethical (and moral) phenomena, and (c) the faithful agreement of the results of this application with our ethical (and moral) experience.

The difference between "ethical" and "moral" refers here to the two levels of ethical science discussed earlier as the double function of metaethics: the negative of criticizing traditional ethics, and the positive of constructing a framework for moral experience itself. The truth of ethical science is the applicability of this science, as a coherent formal structure, to *ethical* phenomena, namely existing ethical theories, and to *moral* phenomena, namely moral situations, and the faithful agreement of the results of these applications to our ethical and moral experience, that is, to our study of ethics texts and our actions and affections in moral situations. Such an agreement constitutes a *value*, just as an agreement between natural science theory and application constitutes a fact.[102] The totality of these first agreements makes the world of values; the totality of the second agreements makes the world of facts. No scientist makes these exact analogies, and none but Margenau develops at all in detail the relation between science and ethics.

Some mathematical scientists such as J. Bronowski,[103] Abraham H. Maslow,[104] and Lillian R. Lieber[105] attempt to derive morals from mathematics and science as an activity—that is, values from valuing, as the scientist does. This is again the fallacy of method as found, in a different way, in Margenau. Here the scientist is taken as the prototype of the moral man, as in Margenau the prophet. The scientist in this view, is moral, but ethics is not moralizing. It presupposes thinking about morality, not being moral. The programs in question are *petitiones principii.*

While Margenau gives explicit specifications for a scientific axiology which is yet not natural science, D. Daiches Raphael[106] gives the outline of such an axiology, or at least such an ethics. He is concerned with two problems: first, to find a common criterion for all right action, or the relation between the right and the good, second, to discover the nature of moral judgment. The first he calls a problem in the *logic of morals*, and the second a problem in the *metaphysics of morals*.

The *logic of morals* is concerned with the system exhibited or implied by moral judgments. It has to examine the logical relationships to each other of moral concepts (for example, whether goodness implies obligation, or *vice versa*) and with general moral principles (for example, the principle of obligation), and to find out if the system of interlocking principles thus constituted can be shown in a hierarchy of dependence. In short, the business of the logic of morals is to show the logical structure of a moral system (or of ethical language). Its primary data are the moral judgments made in ordinary life. The logic of morals has the task of making explicit what is barely implicit in these judgments and of clarifying and refining the relationships between moral propositions. The method of doing so is that of all systematization: seeking out general principles, and rendering these principles consistent both with each other and with the particular facts that they claim to cover. The first kind of consistency is the coherence of the system of general propositions. The second is accordance with the particular facts or data to which the system applies—in the case of ethics, the particular moral judgments of common sense made in concrete situations. The system in question is an abstract logical schema that must satisfy the requirements of a deductive system and at the same time be applicable to the set of facts that it claims to systematize. The situation is exactly the same as in an empirical science, that is, the application of a logical system to a set of facts.

Raphael formulates on the side of moral philosophy the same task for ethics as Margenau on the side of nature philosophy. By *metaphysics of morals* he means an examination of the relations of moral judgment to other systems of concepts and to the facts of experience.

Raphael executes his program by suggesting that "ought" and "good" should be taken as the two basic concepts of the system and asking whether either of these can be eliminated, so that the *logic* of moral concepts could be based on a single concept. His result is that one sense of "ought" (or "right") is definable in non-ethical terms, or in a combination of non-ethical terms and "good," while another sense of "ought" is not so definable. One ethical sense of "good," namely moral goodness, may be translated in terms of the moral "ought" (and perhaps of deserving, which itself requires consideration); another ethical sense of "good," namely intrinsic good other than moral good, is not so translatable.

Raphael has therefore eliminated from his basic concepts of the ethical system certain senses of the words "ought" and "good," but he is still left with two independent ethical notions, the idea of moral or "categorical" obligation, and the idea of non-moral, intrinsic good. Following A. C. Ewing,[107] he then replaces the concept of "good" with that of "fittingness," defining "X is good" as "X is a fitting object of a

favourable attitude" and "X is bad" as "X is a fitting object of an unfavourable attitude" (including prevention and removal).

The relation between goodness and obligation, then, is that fittingness is, in certain circumstances, "a half-way house to obligation." But this relationship belongs to the metaphysics of morals; within the logic of morals both concepts have different meanings and are independent of each other. The fundamental notion of obligation—and this is the subject matter of the *metaphysics* of morals—is the Kantian principle: treat persons as ends, of which all other principles of obligation are determinate forms. The idea of moral obligation arises from an imaginative joining of personalities, an inter-personal relation of thinking of another's interests as if they were our own. This principle is a postulate that seems to work like a category of action. It unifies systematically all principles of obligation. Even if it is unacceptable, says Raphael, the fact remains that some moral principles have implicative relations with each other that flow from their ethical as well as from their non-ethical terms. This, he believes, is in itself sufficient to justify the view that moral judgment includes *a priori* thinking.

> To say that moral judgments are rational is simply to recognize the possibility of a logic of morals. It does not prove anything about the facts to which moral judgments refer, but merely points out that moral judgments imply universal propositions and concepts with logical relations between them.[108]

Empiricist theories of moral judgment deal with quite a different matter, the relation of ethical language or concepts to experience. They presuppose a particular theory of reality and attempt to account for the rise of moral concepts from what they take to be real. Too often empiricists have confused what they are doing—which is the metaphysics of morals—with an account of the logic of morals.

Although Raphael's system is not a formal logical system—the difference being, as he points out himself, that the logic of morals, unlike formal logic, takes account of the content of concepts and judgments, and not merely of empty forms, and thus is an *application of* formal logic to a specific field of thought rather than being a formal logic itself—it is one of the few attempts to apply logical structure to moral philosophy. Moreover, it is one of the very few examples in ethics of a writer's being conscious, at least to some degree, of the difference between a true synthetic system and an analytic "system."

Raphael's "system" is analytic, as are many others, for example, Leonard Nelson's; but Nelson continuously confuses the two notions of *system*. His "systematic rigor" is strictly implicative and philosophical rather than deductive and scientific in my sense of the word.[109] Raphael takes certain analytic concepts—"obligation," "fittingness," "end"—and puts them into a logical order by concatenating, in as coherent and plausible a way as possible, their implications. He does not apply formal axio-logic to moral phenomena, but he *uses* ordinary logic for ordinary arguments with material abstractions—the concepts mentioned. He thus develops into a philo-

sophical system—but not into a scientific *system*[110]—analytic concepts of the kind suggested by Margenau, and equally erroneously if the axiom is the foundation of scientific ethics. Raphael's system is not synthetic, based on logical construction, but analytic, based on axiological abstraction. Its fundamental notions are naturalistic, at least as far "fittingness" is concerned, which is a matter of "attitudes," but also, perhaps, insofar as the basis of obligation is concerned, which is a matter of sympathy. These notions are not really treated as subjects of natural science, but of a system *sui generis*. Though somewhat like Kantian categories in their implicative power, these notions are yet not such categories, partly because Raphael does not construct them as such, and partly because they lack the systematic import that the Kantian categories derive from their logical deduction. In Raphael, the logic of morals has no explicit connection with logic.

The same goes for other attempts in the same direction, such as David John McCracken's, Hellmuth Stofer's, and Paul Kecskemeti's. For McCracken[111] value is explicitly a category of the understanding analogous to the Kantian category of causality. In reflective valuing our intellects are determined by their nature to formulate value judgments. We can say *a priori* of every human situation that the value-category is applicable to it. For example, we can say *a priori* of every sensory field that it has some aesthetic value, or of every situation in which we have to deal face to face with another person that it will present us with a scale of significant alternatives and a choice in terms of values. This does not mean that value judgments (for example, "The Nazi's treatment of the Jews was evil") are "*a priori* true" or are "synthetic *a priori*," but only that they are a summing up of a situation in terms of the value-category in such a way as to make its relation to me as judge and agent and to other judges and agents more intelligible. Such a judgment is true in the sense that

> if I could not assert it as valid not only for myself but also for others, my world would be less 'intelligible'—intelligibility being here taken to involve a relationship not only to my 'pure' thinking, but to by purposes as well. If I wanted merely to say that I dislike the infliction of suffering on racial grounds, I should say so. When instead I make the assertion '*x* is evil,' I am making a predication in terms of the value-category which by its very form *claims* objectivity, claims to hold for others also, and is deliberately chosen to express this claim. It is true that the ethical disvaluation of cruelty is attended by feelings of 'dislike' and impulses to arouse similar feelings in others; it is also attended by factual judgments like: 'This situation is of the same type as others punished by law'; but neither such feelings nor such facts exhaust the meaning of the ethical judgment or even constitute its central core. Its predicate, in so far as ethical, is irreducible to non-ethical terms.[112]

Hence, the proposition "*x* is red" is only grammatically similar to the proposition "*x* is good." The difference does not lie in the fact that "good" is a merely emotive predicate, while red is a simple quality "given" to sense. The difference is that when

I say "*x* is good," I characterize *the whole situation* in which *x* occurs, including its relation to me and to other agents or spectators, actual and potential; "*x* is good" is shorthand for a detailed description of a total differentiated system of relations.

> To call an action, for example, 'good,' is to indicate that it is *so related to a context of things and persons that the total pattern calls forth or demands the application to it of the value-category*, in the special sense that has come to be called moral; and (in the case of 'goodness') with a special '*pro*' emphasis. The '*pro*' emphasis recognizes a positive claim upon emotion, will, and intellect, and commits one to an appropriate active response as occasion arises.[113]

While epistemologically speaking, "value" is an *a priori* category, objectively or in the "material language," value is a structural property of total situations. It is a complex relational property, and to seek any of the traditional trinity of terms—Beauty, Truth, and Goodness—as a "simple quality" is "a fool's errand." The concept of value is not a class-concept derived inductively from particular experiences, but a category of the understanding.

McCracken makes the best of this suggestion. Much of the history of the category of cause is comparable to the present state of the category of value, especially its supposed indefinability.

> If the idea of value can be taken as a category of intelligibility, in analogy with the factual category of cause, then theories of value may be contributions to knowledge no less truly than theories of physical causation; and the conception of knowledge can be taken as having the wider meaning which is very properly ascribed to it in ordinary speech, that of having as its aim not mere description of actual connections, but the comprehension of the data of experience as intelligible.[114]

We have here advanced a further step in the cognitive understanding of value. Obviously, if value were a Kantian category like the fundamental scientific category of "cause," then a *science* of value would only be a matter of time. Unfortunately, Kantian categories do not make science, even though up to a point they explain it. What *makes* science is a formal structure applicable to the phenomena in question. Yet, Kantian categories go far in *making* a science out of *epistemology*, for they do contain a formal structure, due to the deduction of the categories from formal logic. "Value" as a Kantian category, although it would not create a science of value, could yet create a science of valuational epistemology; and insofar as the knowledge of the knowledge of value were a science of value, it could create such a science. But this would be the case only if value were indeed a Kantian category, that is, one *constructed synthetically* on the basis of a deduction from a formal system (in Kant's case, logic). Unfortunately, this *essential* prerequisite of a Kantian category—which makes these categories both universal and precise—is missing in McCracken's

account. His is, again, an analytic and implicative, rather than a synthetic and constructive account. If value is to have a categorial nature, this nature must not simply be *stated*, it must be *deduced* from logic or some other system, which will give it systematic import.

The same systematic shortcoming we find in similar cognitive approaches to valuation. The unknown nature of value overwhelms even deeply cognitive approaches with its own obscurity. For Hellmuth Stofer,[115] too, valuation is a categorial function of human beings. Just as cognition contains a variety of ordering categories, such as space and time that make it possible to delimit and comprehend objects, so valuation depends on a variety of experiential factors that alone make possible a selection among possible modes of reaction. If all sensible qualities were of one and the same kind, a differentiation of objects would be impossible; all feelings of pleasure or pain would be of the same kind and intensity.

Stofer distinguishes between logical, perceptual, and value judgments and determines the *correctness* of each such judgment. *Logical* judgments are correct either because they are consistent within a system or, if judging the correctness of the system itself, if they are useful for definite cognition. Perceptual judgments are correct insofar as the perception is useful for definite purposes. Whereas a perceptual judgment and a logical judgment are limited to the cognition of processes and objects and realize the connection of representation in accordance with simple thought operations, a *value* judgment, in addition, contains psychical acts that are founded in the contents of perception or other contents of consciousness; but it transcends these and represents an entirely different kind of reality, namely, values.

The value function makes possible a purposeful action or reaction of the recognizing subject for itself and other subjects. Value judgments are correct if they offer to subjects the motives of their action necessary for their choice. The foundation of moral valuation is sensitivity, based in feeling and perception, possessed by people in various degrees, forming subjective hierarchies. The object of ethical valuation is human conduct insofar as it is willed and its consequences can be surveyed. Stofer's value theory is ultimately based on the quasi-psychological empirical concept of choice. It is not, and cannot be, more precise than this concept.

Paul Kecskemeti[116] attempts another rational account of valuation on the basis of moral disagreement, not as exact as Braithwaite's, but by a kind of categorial approach. His category is that of "impartiality." Arguments about autonomous values are neither about facts nor about the logical consequences flowing from axioms or assumptions; yet, they are not unstructured. In all of them it is possible to distinguish "postulational" and factual components. Kecskemeti agrees with Charles L. Stevenson[117] in breaking down value judgments into a postulational and a factual part, and he also agrees that agreement is possible only if a common postulational ground exists. But the postulational component cannot be simply equated with "demands," "imperatives," or "desires."

The "postulates" on which the disputants may or may not agree are *standards of a conflict level higher than one*, that is, the level on which "desires" may conflict

with "facts." The judgment, "This is right," means more than the statement, "I wish people would act this way." It presupposes a standard on the basis of which people may distinguish right from wrong, regardless of all momentary demands or interests. Agreement is possible only if all disputants have such a standard in common. If some ethical standards are autonomous rather than hetoronomous, then ethical discussion may in some cases parallel the one about scientific fact finding; it may appeal to a "*rational*" standard rather than to an irrational one. This autonomous standard is, precisely, the principle of impartiality. It defines the meaning of a social situation, namely that in which the participants agree that the correct decision concerning the matter under dispute must be invariant with respect to their personal interests or demands.

The principle of impartiality is, logically speaking, a postulate. It is neither an analytically true formula nor a statement of fact. Hence, in a sense everybody is free to accept or to reject it; but it is not irrational. It is rational in the same way and for the same reason that the basic postulates of scientific activity are. These postulates, as value standards, are not "rational" because they are logically or empirically demonstrable; their rationality consists in their capacity to generate consensus in a social situation without recourse to suggestion and coercion. The same is true of the principle of impartiality, although to a lesser degree. To the extent that the disputants can "see the point" of a free, impartial ordering of society, they also work toward a consensus that is not based on either coercion or suggestion. The difference is merely that, in the case of ethical principles, shaping actual decisions according to the standard is a matter of approximating an ideal in a more or less imperfect way, whereas in science exact measurements make possible reaching the standard in every case.

Here we can grasp almost physically the difference between analytic and synthetic procedure. The "standard" of science is the system of mathematics; that people agree to it is an accompaniment—the accompaniment of *method*—of its formal consistency and material applicability, its systematic and empirical import. The corresponding standard in ethics would be a similar system, that is, a *formal axiology*. Instead of elaborating this central point, Kecskemeti, like so many other writers in moral philosophy, gets sidetracked by superficial analogies—"agreements" in science and in morality—and elaborates this tangential issue rather than the central one, neglecting to see a difference *in kind* and not merely in degree between agreement in science and in morality. Agreement in science is engendered by the formal system by virtue, precisely, of its formality; whereas agreement in morals is an empirical hit-and-miss affair based on implicative analytic, and hence *facultative*, rather than on formal and synthetic, and hence *obligatory* rationality. The second is expressed by synthetic *a priori* judgments. The *a priori* is, precisely, the formal system in question that makes the judgments necessary. "Obligation" is the ethical term synthetic *a priori* necessity.

Kecskemeti's notion of "standards" is, correspondingly, vague and unstructured. Value standards, as postulates, are a species of the genus "standard," another such

species being "standards of meaning." Meanings are "relations between organism, situations, signs, and responses or between symbols, properties, and sets of situations, or situations; they are not mental processes either experiences by a subject or communicated by him to a partner."[118]

Standards of meaning are either standards of relevance or standards of order. Standards of meaning underline situational meaning; they are relevant to the needs of an organism and lead to biologic or hedonistic responses. Standards of order determine definite tasks, just as standards of relevance do; but the good response is not in terms of some enjoyment, but in solving a problem. These are formal: rules of games, rules of classification, and the like. *All* standards, the author says significantly, have an "analytic" structure. From a logical point of view they may be considered as "definitions." A standard of relevance defines a kind of situational satisfaction; a standard of order defines winning or losing a game. Rules of language are communicative standards.

Thus the rational matrix of value, for Kecskemeti, is not the pattern of formal logic but one of situational behaviorism dressed in situational "logic," somewhat similar to R. M. Hare's. Yet, in seeing meanings as standards, Kecskemeti is far advanced on the road to value cognition. All that would be needed to leap the gap to formal axiology would be to take seriously this nature of meaning and combine it with its logical nature as intensions of concepts. The result would be conceptual intentions used as value standards—precisely the axiom on which formal axiology is built.

The works discussed thus far raise the question of the rational character of value judgments *on principle*. A number of writers address themselves to this problem from a naturalistic point of view, but without making valuation a subject of natural science.

C. I. Lewis[119] intends to discover *a rational pattern for value judgments*. He understands that what is needed is a complete etiology, "a general study of the right and the diverse modes in which right and wrong are judged." But he is not prepared to offer it; it "would represent an incomparably greater undertaking, hardly to be accomplished except by embracing an adequate theory of all the normative disciplines."[120] Hence, he presents some observations relating to ethics. "The morally right is one species of Right and cannot be identified with right in general." Thus he establishes clearly the difference between ethics and axiology and guards against the moral fallacy.

The Right is established on a rational basis, Lewis believes. "To say that a thing is right is simply to characterize it as representing the desiderated commitment or choice in any situation calling for deliberate decision. What is right is thus the question of all questions."[121] Lewis locates the right in the process of situational deliberation. With this starting point he already cuts himself off from exact logical analysis of the right for the reason that "situational deliberation" is an analytic and not a synthetic concept and hence admits of no exact systematic treatment. Lewis does not even propose the kind of empirical exactness offered by R. B. Braithwaite, or Donald Davidson and Patrick Suppes. Rather, his instrument is the vague kind of

pragmatic "logic" introduced—together with the corresponding style—by John Dewey. Although Lewis recognizes that value judgments are not merely interjections, the logical instrument to understand them is vague (and at times ponderous).

> It is activities determined directly or indirectly by deliberation and decisions, together with what flows from them, for which we are properly accountable and to which criticism is properly addressed. And each and every such piece of our conduct, mental or physical, is either right or wrong.[122]

Right or wrong is "whatever is decideable or can be determined by deliberation." There are principles of normativity that determine deliberation, and hence are constitutive of judgments of right or wrong. In inductive reasoning, for example,

> no inductive conclusion is well taken and justly credible unless the obligation to muster all the given and available evidence which is relevant to this conclusion has been met....Indeed, this principle of the required completeness of available and relevant evidence for the justified credibility of inductive conclusions has a character which is plainly akin to the moral.[123]

It has the character of a maxim.

> It calls upon us to be objective-minded, 'reasonable,' 'fair,' willing to give as much weight to what the opposition may put in evidence as to that which we advance ourselves. It demands that respect for facts as such prevail over any wish or subjective inclination....Almost we may say that one who presents argument is worthy of confidence only if he be first a moral man, a man of integrity, prepared not only to tell the truth and nothing but the truth but also the whole truth as he knows it.[124]

Lewis here says, in effect, that the kind of thinking that determines moral action is moral thinking. This is not quite sufficient for an analysis of what moral thinking really is. Needed is, precisely, a determination of "reasonable," "fair," "moral" in terms of some coherent theory. To determine "right" in terms of "moral" is, again, to define *ignotum per ignotius*. The result of Lewis's analysis is, then, that right and wrong are embedded in a "normative" matrix, whose nature, however, is as obscure as that for which it is to account.

He then proceeds to apply these "normative" principles to conduct. Conduct consists of actions, and actions are distinguished by their consequences. "Any consideration of an act has no content except the predicted consequences of it," and the consequences may be good or bad. Lewis's definition of goodness is "that quality of passages of experience by which he who experiences them finds them satisfying and such as he would prolong."[125] Thus, the ground for choosing the right course of action is the hedonistically interpreted goodness of its consequences. But the predic-

tion that an act will produce the maximum amount of good consequences is only "the minor premise" of the moral syllogism. The major premise is some valid rule or principle that can select among the many goods possible—personal and social, inherent and instrumental, and so on. The search for such a principle, whose own validity as right is "the deepest-going and the most difficult of all questions concerning right and wrong," leads Lewis to the "Law of Objectivity":

> So conduct and determine your activities of thinking and doing, as to conform any decision of them to the objective actualities, as cognitively signified to you in your representational apprehension of them, and not according to any impulsion or solicitation exercised by the affective quality of your present experience as immediate feeling merely.[126]

In simpler language, this means, "Be rational and not emotional."

Lewis belabors and brings forth the oft repeated principle that man, to be a good man, ought to be a rational being, that is, fulfill his definition. This insight in a systematic ethics ought to be at the beginning, and its validity ought to be on the basis of a formal axiology. But, just as Lewis offers the matrix of deliberation instead of a genuine systematic frame of reference for right and wrong, so he offers the validity of an ethical axiom "as valid and itself right" instead of the validity that such an axiom is itself to establish. The validity of an ethical axiom can only be established by axiology; it is axiological validity. The validity that the axiom itself is to establish is ethical validity, the "deepest going and most difficulty question," cannot be answered unless the fundamental relationship between ethics and axiology is determined. This is precisely what Lewis says he is not prepared to do. Lewis's proposal suffers from its own self-imposed limitation, and its failure arises from his refusal to face the issue.

Unfortunately, no more penetrating attempts by naturalists, in the second post-Moorean period, anchor valuation in rationality. Both material and formal naturalists take too much of rationality for granted to subject it to the kind of profound critical examination we find with philosophers and scientists in natural science. Even in the first post-Moorean period, no methodologically profound attempt was made—not excepting the prodigious effort of Lewis himself[127]—to counter Moore's naturalistic fallacy by a formal rather than a material attack. Although value was not regarded as an object of natural science, the formal categories devised for it, such as Lewis's extrinsicness, inherence, and intrinsicness of value, or the ontologico-phenomenological categories of Nicolai Hartmann, were too material, in the sense of G. E. Moore, not to be counted as naturalistic.

In the second period, many fractional accounts of the rationality of valuation were given, justifying this rationality from a variety of view-points. A. C. Ewing[128] restates his criticism of both naturalism and subjectivism on the basis of his own earlier definition of "good"—the non-naturalist character of which, it is true, is open to doubt; and he criticizes in general the attempt of naturalists and subjectivists to

represent their views as an analysis of, and not a contradiction of, common sense ethical judgments. He is convinced that even if ethics has a logic of its own, this is not too different from ordinary logic. This conviction is shared by Henry Margenau,[129] whose appeal to the syllogistic conventionality of legal judgment is out of date.[130]

C. A. Baylis[131] shows that some value judgments—those that affirm that the pleasantness of an experience is good—can be confirmed in much the empirical way in which scientific judgments are confirmed.

Warner A. Wick[132] holds that moral philosophy can be "revived" if we regard moral rules as rationally criticizable but imperfectly formulable, in a manner like that "by which we criticize and try to state the generic rules of logic," such as the principle of contradiction. According to these principles, we construct systems that are rational, if anything is; yet, they are not cognitive. The rational and the cognitive differ, and not all that is not cognitive is emotive. Maybe this is another approach to my own solution, which finds the alternative to empirico-analytic naturalism and pragmatico-irrational subjectivism in the axiomatic structure of formal systems. For what is rational though not cognitive if not axioms? For Wick, moral rules and maxims, and the principles that govern them, have rational grounds even though they are not "cognitive" in the narrow sense.

J. O. Urmson[133] similarly holds that there is no reason to condemn ethical reasoning simply because it does not follow the standards set by either deductive or inductive logic. Our conception of what is valid and what is invalid in ethical reasoning must be derived from a study of ethical reasoning. It is no more possible for all ethical arguments to be invalid than for all men to be small men. If according to some logic this should be the result, then so much the worse for the logic. According to H. J. Paton,[134] the emotive theory discredits ethics; and the moral attitude is intrinsically rational. For J. D. Mabbott[135] the subjectivist analysis of moral judgments is contrary to normal usage. The "meanings" it attaches to them are not the ones meant by these judgments. When we compare different such judgments we use procedures that imply objectivity.

An attempt to deduce a system of value from a system of logic, or at least of epistemology, is William H. Werkmeister's.[136] His proposed value theory is based on an epistemological analysis of first person experience as a bipolar structure between the subject and the object of knowledge. He extends his earlier analysis of this experience[137] and its application to natural science[138] to moral science. Werkmeister believes that such a rigoristic approach to value theory—analogous in method to natural science—will have results analogous to that of natural science. It will assign to each of the value terms—"value," "good," "right," "ought"—a uniquely significant place and thus provide a systematic interpretation of all relevant data adequate to the facts of value experience. Werkmeister sees very clearly the necessity for and the advantages of a truly systematic approach to valuation. The mere conception of such a system, I believe, establishes value theory as an independent branch of knowledge and forbids any reduction of value terms to naturalistic terms. Yet, Werkmeister's empirical view of science prevents him from truly executing this

program. In illustrating his view by a *moral* example, Werkmeister defines "will" somewhat naturalistically, as including inclinations, intentions, and the like, and betrays a tendency to psychology and anthropology that increases as the theory progresses. A good will is one tending to realize the highest values possible in any given situation. This definition depends on the axiological definition of value-in-general; and its definition, Werkmeister believes, must be empirical "since our theory is to be an interpretation of value phenomena." Although he made clear in his philosophy of science the essential role of formal systems,[139] Werkmeister fails to take this seriously in his value theory.

The founders of natural science, Sir Isaac Newton, Galileo Galilei, Niels Bohr, and others, he says, proceeded "empirically." But this is not the primitive empiricism of sense observation, which only served to precipitate the formula that gave the clue, opening up the Sesame of the system and letting the inquirer enter into it. The first-person experience on which Werkmeister insists in his philosophy of science is, precisely, the great experience of genius in discovering a system. Werkmeister begins his value theory with the data of first-person experience, but in a peculiar way. The "object" involved in value experience is for him not value, as a strict scientific analogy would require, but any object that *evokes* value. With this emphasis on the evocation of value rather than value itself as the object of axiology, Werkmeister's theory leads toward naturalistic views such as C.I. Lewis's and others. Borrowing from Lewis the distinction between intrinsic, inherent, and instrumental value, Werkmeister's theory develops by means of symbolic schemata which represent first-person experiences; but they cannot be more revelatory of value than this experience itself, that is, the experience of value evocations. In a strict analogy to natural science, they are to axiology as the signs of the zodiak are to astronomy.

Without a formal system—a constructive axiomatic rather than an abstractive schematism—no practically efficient axiological *science* can be established. Therefore, "applications" of such schemata to practice lack necessity and coherence. Ralph Barton Perry,[140] applying his concept of "interest" to the human pursuits and institutions that make up civilization, is much less structured than Albert L. Hilliard's and F. S. C. Northrop's similar attempts, but he proceeds on the basis of analytically much better structured concepts.

The difficulty of establishing an independent axiological system as universal and precise as the mathematical system of the natural science has led some axiologists to a methodological *tour de force*: using the terminology and method of already existing value sciences as models for axiology. This is putting the cart before the horse and employing the prescientific Aristotelian procedure characterized above of using the *explicandum* as the *explicans*. Supposing that general theory of value is that by which theories of specific values are to derive their meaning and validity, it is methodologically illicit to reverse the procedure and derive the meaning and validity of general theory of value from the theory of a specific value.

Such procedures, long since overcome in natural philosophy, are quite frequent in contemporary moral philosophy, not only in material but also in formal naturalism.

Their suggestiveness and intellectual ingenuity must not blind us to their fundamentally mistaken methodological basis. Thus, W. D. Lamont founds his analysis of the value judgment on the terminology and procedure of economic science,[141] in a manner similar to, though more systematic than, the one in which he had earlier related the moral judgment to jurisprudence.[142] William Kneale, Stephen E. Toulmin, and Héctor Rodríguez base axiology on jurisprudence, and F. S. C Northrop and Henry Margenau have drawn analogies between axiology and jurisprudence. Historically, human law is based on the law of nature, that is, the rationality of the universe. Without faith in this rationality no human system is possible.

The difference between value and moral judgments, according to W. D. Lamont, lies in the respective personal and inter-personal reference of the two kinds of judgment. Valuation is choice; it is concerned with the correlation of ends within a total *personal* conception of "the good." Moral judgments, being the assertion of duties or obligations, carry a reference to the conception of "right" and therefore to an *inter-personal* order. Value judgments may be called an "economic" assessment of modes of action, while moral judgments involve a "juridical" assessment. The theory of *value* judgments thus is concerned with matters common to ethics and economies, the theory of *moral* judgments with matters common to ethics and jurisprudence.[143]

Value judgments are not, strictly speaking, about things and their qualities. They are, rather, about their being, maintenance, and destruction. References in the content of value judgments are to "ends" or some "end." They indicate a state of affairs that the judger has a disposition to bring into existence, maintain in existence, allow to go out of existence, or destroy. They appear to be primarily, though never entirely, the expression of a conative disposition, or of a "demand." To call something good is to express approval, to express the disposition to create or maintain it in existence. While the simple positive value judgment "X is good" expresses a demand or conative disposition to maintain something in existence, a "comparative" value judgment is an expression of "choice" when objective circumstances, for the moment beyond our control, enforce on us the necessity of renouncing one thing if the other is to be attained. Thus, "valuation" implies conditions of "scarcity," and in this way the field of valuation is identified with that of economics, in a way similar to that in which Glansdorff, in a different context, identifies it with the biological theory of adaptation—another proof that what unites and what divides value theories is method and not content.

W. D. Lamont's first propositions are similar to Glansdorff's principles: "Valuation is always relative or 'comparative' never absolute or 'simply positive.' Value is attributed to the non-existent, never to the existent."[144] His subsequent propositions use the terminology of economics. His ultimate grounds for the attribution of goodness sound biological rather than economic: "The ultimate ground of all attribution of goodness is the existence in our nature of certain activity-patterns which are not teleological but organic."[145] On this organic matrix the economic-valuational activity is built up. A value judgment in its simplest form is a mere attribution of

goodness rather than an attribution of degrees of goodness. It is what the economist would call an expression of "want" or "desire."

> It is that psychical attitude in virtue of which the economist attributes 'desiredness' or 'utility' to that to which the attitude is directed. It is a psychical state with the emphasis on the conative disposition towards the creation or maintenance of a state of affairs.[146]

It is "demand" in the general sense. But any particular attribution of goodness, or demand in this general sense, remains

> devoid of practical effect if it stands in competition with other demands of the same subject, the objective conditions rendering necessary a choice between the two or more things demanded. Such enforced choice means enforced 'valuation,' the placing of the alternatives in an order of degree of goodness.[147]

The ultimate ground of the attribution of goodness (the "simply positive value judgment") is the existence in our nature of certain organic activity-patterns, but the ultimate ground of our comparative value judgments—those which normally determine what we effectively regard as good—lies in the principle of Economy. "This is the principle whose operation is popularly described as the search for happiness."[148] It is that principle in our nature that makes us integrate our different conative dispositions in the pursuit of "what is good on the whole."[149]

While Lamont, in an ingenious way, takes economics as the model of axiology, William Kneale[150] uses the law. His legal analogy is interesting in comparison with H. L. A. Hart's[151] entirely different account of the same analogy. Kneale thinks that words such as "ought," "right," and "wrong," far from being unanalyzable, are, on the contrary, obviously analyzable; and their moral use can be explained in the same way as the use of the same words in legal discourse. As used by both lawyers and moralists, the word "right" is equivalent to the phrase "in accordance with the law," only that in the case of the moralist the law referred to is the moral law. When Mrs. A. seeks the advice of her minister about what (if anything) she should do concerning her boarder, Mrs. B., whom she suspects of being unfaithful to her husband—a prisoner-of-war in a foreign country, she fully expects him to begin his part of the conversation by shaking his head and saying "Tut,tut." But that is not all she wants to hear from him. When he tells her "You ought to do X," he purports to tell how the moral law applies to her case, and this is what she wants him to do. There is a close analogy, then, between the ways in which the lawyer and the moralist use such words such as "right." There was a time when no one made a sharp distinction between the moral law and the law of the land, but people spoke simply of the Law.

The question then comes down to, "What is the moral law?" Kneale gives four features of it: the moral law (1) is supposed to be stricter than the law of the land, and (2) is thought to differ from the law of the land in having no sanction. (3) Those who

have attained a clear notion of the moral law think of it as a system of orders that they themselves concur in giving, and (4) the moral law is thought to be a set of commands that all reasonable persons who possess the relevant information must concur in giving to themselves and their fellow human beings. Reasonableness, the last feature, which makes people legislators of the moral law, is something more than rationality. It means willingness to consider reason and to modify our own preferences.

The subjectivist may oppose that the moral law is not objective since it cannot be ascertained in a purely intellectual fashion as the law of the land may be. Obviously, Kneale argues, the moral law cannot be objective in the same sense as a fact or a law of natural science. The word "objective" rather means something like "impartial," "free from bias," "independent of personal taste," or, more explicitly, "common to all reasonable persons." We cannot speak of John's moral law or Smith's moral law. In this sense, the moral law is objective by definition. Kneale does not discuss the systematic structure that this moral law could or should have or elaborate its analogy to positive law, to natural law, or to mathematics. If there is a moral law, it must be possible to define its terms, "morality," "value," and such, as elements of a strict system. Kneale, as against both Herbert Feigl and Paul Kecskemeti, whose theories resemble his, is convinced that there is such a system, even if he cannot define it and must fall back, for the content of the law in each particular case, on the context in question. Kneale appeals to the law because of its universal nature.

Stephen E. Toulmin[152] appeals to the law for the very opposite reason, its pragmatic nature. If there is to be a pattern for axiology, it cannot be the formal one of mathematics or that of traditional logic. The formality of these patterns cuts them off from practical use. Hence jurisprudence rather than mathematics should be the axiologist's and even the logician's model in analyzing rational procedures. This *tour de force* is based on the pseudo-Wittgensteinian misunderstanding of the scientific method, at least in fields still philosophical, and of the nature of systems in particular. Their formality is precisely what makes systems practically effective, and no other genuine effectivity exists in natural and, as far as we know at present, human affairs. Jurisprudence, Toulmin's model, is itself painfully aware of its pragmatic shortcomings, and the trend in it is toward the kind of systematicness that Toulmin counts upon jurisprudence to overcome, as in the works of L. Straus, Leonard Nelson, and Eduardo García Máynez.[153] Toulmin is like a drowning person desperately grabbing at a life-saver that has been thrown away because it will not float.

Héctor Rodríguez has a third reason for using jurisprudence as a model for axiology. He sees rightly that a scientific ethics cannot be based on religion or metaphysics. The subject matter of ethics is humankind, which means both the individual person and the totality of all persons—seen under the viewpoint of the will. This totality is essentially a juridical one because the free agreement of responsible persons is the relation of *contract*, and this relation is the basis both of the law and of ethics. The juridical order thus turns out to be the objective order of ethics, and goodness becomes equivalent to justice. The danger of constructing the

injustice of a legal order as justice, and hence evil as good, he counters by fusing the concept of science with that of ethics: goodness or justice cannot be autocratic for this would presuppose the contradiction of an absolute scientific knowledge. Scientific knowledge is by its nature democratic, that is, relative and progressive. Insofar as ethics is scientific—and a scientific ethics is Héctor Rodríguez's premise—it cannot be autocratic or absolute. As is clear, this axiology is, of the three juridical foundations mentioned, closest to Kant's. It also suffers from the same shortcoming as Kant's: that the moral law, the ethico-legal order *in itself* lacks a criterion for good or bad. The scientificness of the discipline that *deals with* this order, ethics, does not guarantee, much less establish the scientificness of the order *dealt with*. This is the fallacy of method we have so often encountered.

Jurisprudence and economics are not the only specific value disciplines used as models for general theories of value. Such models have been found in general theories of culture,[154] social science,[155] evolutionary theories, psychology, anthropology, indeed, as we have seen previously, there is no field that cannot, and for which, some of their devotees would not, be regarded as the value field *par excellence.*[156] *The only such field missing at present is that of value itself.* There is no general theory of value which elaborates Value itself independently of anything that *is* valuable, and this goes for naturalistic as well as for non-naturalistic "value" theories. Moore's fallacy is all-pervading: Value itself is, in every value theory up to now, identified with something that is valuable; the species is taken for the genus. The only way out of this predicament is a *formal* axiology.

The naturalistic theories examined in this section are not formal in the logical sense: they do not regard value phenomena as subjects of some natural science. Values for them are naturalistic phenomena in the sense of Moore. They do regard them as subjects of some method analogous to that of natural science, and "natural science" is conceived here in all kinds of manners, from the most empirical to the most formal (as by Margenau). Value itself is conceived either as a naturalistic phenomenon, such as choice, preference, desire; or as a pseudo-formal phenomenon, such as agreement or objectivity; or as a valuational phenomenon in the narrow sense, such as duty, the Golden Rule, and so on. All these theories, then, "formal" as they are in the sense defined, are tied to some content. Let us now close our account of the naturalistic formalists with some theories that abstract somewhat more from material content, even though none do so to such a degree as to lose their naturalistic hue.

Here belong, first of all, the cooperative inquiries edited by Ray Lepley.[157] The first of these discusses four questions posed by John Dewey, namely (1) What connection is there, if any, between an attitude that may be called prizing or holding dear and desiring, liking, interest, enjoying? (2) Is a judgment of valuation a necessary condition for the existence of values? (3) Does anything in the nature of evaluations as judgments mark them off from other judgments? (4) Is the scientific method, in its broad sense, applicable to judgments of valuation? The contributors agree on an empirico-naturalistic interpretation of value phenomena, yet do not regard these

phenomena as the same that are dealt with by natural science. They are all for the application of the method of natural science—narrowly empirically conceived—but not its content. "The cause we plead is the cause of a science of valuation, which is possible only if our value-terms are given definite descriptive meaning." The second inquiry covers the whole gamut of value language, from empirical description to formal construction.[158]

Less elaborate but no less definite proposals for empirico-naturalistic axiologies on a more or less formal basis are T. Czezowski's, Meckler's, and Carl Cohen's. Czezowski[159] regards moral principles as generalizations of individual acts of appreciation that are communicable, verifiable, and can be known empirically in a way that differs in nothing from the empirical knowledge of natural science. The position reminds us somewhat of Sören Halldén's.[160] Meckler[161] attempts to show that *in principle* value judgments may be translated into factual sentences. No universally acceptable characterization of "value" is possible, but the assumption that *x* is valuable if and only if *x* ought to be done seems compatible with all major theories of the "good." Thus, x is valuable implies that *x* is produced by some possible human action: "*ought*" implies "*can.*" Hence, both value-producing events as well as the events valued are describable and can both be treated as "facts." The claim that the *ultimate* cause of these actions differs from the usual "physical" causes, that it is "noumenal" or "final," is found wanting, as is the view that human actions cannot be scientifically predicted, hence that the realm of science cannot intrude upon the "realm of value."

But what *kind* of facts are values? Evidently, behavior in agreement with the "moral" always results in events approvable by the judgers.[162] Ascription of "morality," of "value," occurs where there is approval or satisfaction in such judgers. Even though the conditions under which these approvals and satisfactions happen are very varied, they are yet all factually describable. It is no counterargument to say that science may describe but not *prescribe*. Prescribing presupposes a wanting, a valuing; science is a method, not a wanting. Meckler's proposal, thus, comes down to a psychological theory based on the teleological interpretation of "ought." It somewhat resembles Rapoport's.

Carl Cohen[163] suggests a formal frame of reference for naturalistic axiology, based on semantic analysis. From the "eulogistic-dyslogistic" axis of word choices, as illustrated in Bertrand Russell's "conjugation": "I am firm," "You are obstinate," "He is a pig-headed fool," Cohen concludes that value attitudes may be identified by such analysis. This analysis may be refined in a "vector analysis of value judgments." We may regard the value universe as a unit circle with the highest good located at 90^0 and the lowest evil at 270^0 and determine any location within the circle with reference to these points. The scheme reminds us of Khouteck's diagram, discussed by Nicolai Hartmann[164] in connection with the Aristotelian mean. It is naturalistic in the sense of referring to attitudes, but it abstracts so much from these attitudes as to be *almost* purely formalistic. The difference between a naturalistically

formal and a purely (non-naturalistically) formal axiology is supplied by Cohen himself in his formal theory of Goodness.

Let us now turn to these theories.

Seven

NON-NATURALISTIC COGNITIVISTS

He must be able to give a rational explanation of all that admits of rational explanation. Plato[1]

1. Non-Naturalist Empiricists

Non-naturalist empiricists recognize value in experience *sui generis* that is either ontological or phenomenological. In the first case value appears as an aspect of Being, in the second as a realm of its own. In the first case, value is identified with something that *is* valuable; hence ontologists share with empirical naturalists the commission of the Moorean fallacy. Due to the ideal rather than sensory nature of the valuable object, they are closer to a formal view than are the naturalists. Phenomenologists are even closer to this view, the valuable object for them being value itself. From a formal point of view, while naturalistic empiricists reify what ought to be an abstraction, indeed a construction, non-naturalist empiricists hypostatize what ought to be an everyday procedure.

A. Ontologists

Here belongs the scholastic school of value. In the period under discussion, Jacques Leclercq[2] offers an exposition of the axiological view of this school—of value in general, the notions of the good and the bad, the objectivity of value, and the relationship of the good, the true, and the beautiful (in the notion of the transcendentals). In its clarity and logical structure, their account makes clear the striking resemblance to, as well as the difference between, the scholastic and the modern method of approaching the notion of values through a linguistic analysis of ordinary language. Scholastics, like moderns, find the fundamental aspect of morality in the value judgment, but instead of inventing a new "logic" of contextual "meanings," they use the method found in Socrates, Plato, and Aristotle and taken up by the authors of the middle ages, in particular, St. Thomas. It consists in examining the customary meaning in everyday value judgments and, once it is found, in rising to the concepts to which these meanings correspond and the idea of reality that it implies. Thus,

> in starting with words that are on everybody's lips and from notions that seem elementary, they arrive, by a work of purification and elimination, at properly philosophical notions and at precisions that at first glance seem a little strange in relation to common conceptions even though they contain them within themselves.[3]

The usual scientific and empirical procedure is used to move from the particular to the universal. The chaos and contradictions of ordinary words and phrases are overcome by reaching, as in any scientific experiment, the fundamental and essential, discarding the inessential,[4] and finally reaching, as in a scientific precipitation, the inner core of all the material and formulating it in a definition.

> In the dialogues of Plato, Socrates goads his interlocutors with questions that oblige them to find what they implicitly think and to coordinate their ideas. St. Thomas, starting from the same tradition, instead of using this meandering method of Socrates goes in more direct ways. He begins with a verbal definition but elevates himself immediately to the implicit philosophical notion. The procedure is the same as the traditional, but it presents the advantage of starting with notions that everybody has the intelligence to understand and that have a familiar ring.[5]

This method has been lost in value theory today. Either, as in the Oxford School, theorists remain in fragmentary "meanings" without desiring overall analysis, or they state universal notions without anchoring them in everyday usage. Only the phenomenological school, according to Leclercq, follows the old tradition.[6] In view of its logical clarity and truly scientific procedure, at least up to analytic definition, though not all the way to the synthetic, seeing where this method leads is particularly important. It leads to a value ontology that may be expressed in many forms besides its own metaphysical terms.

Ontologically speaking, the thing is good if it is what it is, and to the degree that it is what it is. The metaphysical expression for this is "perfection." The thing is good to the degree of its perfection. Each thing has its own order of perfection. The good of a horse is not the same as that of bread, and the good of a race horse is not the same as that of a work horse. The value judgment depends on the nature of the thing judged. "If the end of a horse is to run, a perfect horse is the one which runs as well as his nature of horse-ness allows."[7] The word "nature" designates here the set of characters that determine a thing in itself—the necessary characters of the thing, its essence. This metaphysical terminology can be expressed in many different ways. In terms of modern axiological philosophy it means that the thing is good if it has its good-making properties. Teleologically, it means the thing is good if it fulfills its purpose. Epistemologically, it means it is good if it has its essential properties. Logically, and in terms of formal axiology, it means it is good if it fulfills the intension of its concept. Bernard J. Lonergan and I have both commented elsewhere on the transition from "nature" to intension and hence to formal relations.[8]

Surveying the history of axiology, we have here the *axiologia perennis*, varying aspects of one and the same relation, the fundamental relation of axiology between the factual and the value properties of a thing. Unfortunately, the interconnection of these various meanings has never been stated, partly because they have never been clearly distinguished, partly because when distinguished they have not been synthe-

sized. The analogy in modern axiology between good-making properties and Moore's "description," and the logical nature of "description," has not been taken seriously. From this analogy to the identity of the two and their logical natures is only one, and a fairly obvious, step. In the account of Leclercq, although the metaphysical sense is clear, the other senses—teleological, epistemological, and so on—are mixed into it. Especially, and this is the shortcoming of Aquinas's axiology, the relations between desire and perfection, and between the perfection of the individual thing and of creation as a whole, are not logically clear. The Aristotelian basis with its naturalistic fallacy spoils the logical clarity of the scholastic idea of perfection, as stated in all its purity by Saint Anselm.[9]

The notion of specific perfection is generalized into the perfection of an absolute being that lacks nothing and has the abundance of all properties. A perfect horse and a perfect man are absolutely good in their order. They are particular values but not the absolute value of the totality of all Being. The properties of this absolute being are the transcendentals and follow logically from its nature. They define the universal order of all being. This leads logically to the notion of bad. If each being is good to the degree that it is what it is, then bad is not found in any being taken in itself. A stone taken by itself is good in that it is what it is in realizing its type. Only an object that is not in its place either in the total or in some specific order and that does not fulfill its function or render the services that belong to it can be bad. Badness thus is an implication of the notion of order. It is disorder: it consists in the non-realization of an order. Traditionally, this was expressed as negation or deprivation of being, but Leclercq believes a more fortunate formula for bad defines it as disorder. This throws an interesting light on Oxford philosophy, which disdains order. The notion of "bad" appears in formal axiology as *logical* disorder (transposition of frames of reference).[10]

Ontological axiology is so articulate because, at bottom, it is only a hypostatization of logical relations. As Hermann Lotze indicated, logical relations lead to axiological ones.[11] These logical relations may be recovered by a dehypostatization of ontological axiology. As it is, ontological axiology, in its most developed form, is to formal or logical axiology as a mirrored image is to its origin.

Variations of the ontological view of value are found in all countries of the European continent and in Asia. In France, during the second post-Moorean period, we have the last works of Louis Lavelle and René Le Senne, both thinkers who regard values as guaranteed by a transcendent source, the Absolute Self, in which finite selves participate. Since Moore was practically without influence on the European continent and in other areas of non-naturalist axiology, and these theories were developed practically without reference to Moore or knowledge of his fallacy—in what we may call an axiologically naïve manner—the expression "second post-Moorean era" is here to be taken in its merely chronological sense, as covering the years of mid-twentieth-century.

For Louis Lavelle,[12] modern value theory, rather than breaking with classical metaphysics, should be its heir and resurrection. Value, rather than being unreal as

the positivists hold, not only has reality but transcends the reality of the world and gives it legitimacy. Value is "unreal" only in the sense of being the *meaning* of the real. It is the domain of Difference, constituted by any break of indifference—a thought found also in naturalistic French axiology (like that of Maxime Glansdorff), formalistic axiology (like that of Daniel Christoff), and particularly celebrated in the philosophy of Jean-Paul Sartre with its apotheosis of "the gap" and "the hole." It is, it seems, the axiological contribution of the French, though it finds its prototype in the negative existentialism of Martin Heidegger.

Value, for Lavelle, is the negative of indifference; it finds its ontological foundation in an Order that may well have a logic of feeling paralleling the intellectual logic of Being. Being and Value are one and the same. Where value separates itself from being, nothing remains of being but the phenomenal; it is Being stripped of its meaning—and, in so far, not truly Being.[13] The unity of Being and Value is not merely abstract but, as Being particularizes itself in the participation of individual selves, so does Value. Thus arises the diversity of values that is the subject of the second posthumous volume of Lavelle's imposing work. Through it he joins from the side of ontology, and as the most profound and most comprehensive thinker, the ranks of those who give practical relevance to value theory, such as A. L. Hilliard, F. S. C. Northrop, and F. E. Sparshott.

René Le Senne's last work[14] gives the final form of his sociological thought. All persons are destined to seek their value. In doing so they transcend particularity and fulfill the purpose not only of themselves but of all existence, uniting human strivings in the one Absolute Value beyond empirical or subjective determinations. Thus, persons are not only saved of the idolatries of specific hypostatizations of empirical features of nature, state, or individual, but this absolute reference makes them, as value, transparent to the highest Value, makes them live absoluteness, and existentially unites them with God. Le Senne connects the concrete study of human beings with the metaphysics of value. Value is impossible without unique persons: persons give objects their value. In this sense, value is that which enriches and is derived by the self.

The value of objects must not be confused with the object valued. We cannot localize value in objects. Value is different from objects perceived; it is rather what we seek in objects. An object is nothing but what it is, but the value in it is always bi-polar, positive or negative. A wall can have value as a protection or as a barrier, a jewel as a gift or as a bribe. Value has no confines, no limits; it is "atmospheric," suffusing everything.[15] Persons as values are part of its oneness. Value is "the inter-existential relation" that unites and ennobles persons.

Transcendent as this sounds, this position can be translated into logical formality. The logical counterpart to this ontological description of value is the understanding that Value is a variable rather that an instance, the solution of Moore's paradox of the "two different propositions that are both true of Goodness." For if Value is a logical variable, such as Number, it obviously cannot be localized, transcends particularity, is beyond empirical and subjective determinations, has no confines or

limits, and "suffuses" everything by being applicable to everything. The ontological position can be derived from a consistent and imaginative application of formal axiology. But it cannot and must not take the place of such an axiology. A perceptive and lucid exposition of Le Senne's thought is given by Jules Pirlot.[16] Raymond Ruyer developed a position in general similar to Lavelle's and Le Senne's in the direction of suggestive and precise models like the optic of colors[17] and the teleological analysis of situational process.[18] Raymond Polin followed up his work on the creation of values[19] with a book on the negative aspects of the theme.[20] These thinkers use their analyses as criteria to classify a wide range of value philosophies.

While French ontologists emphasis the transcendence over the immanence of value, the situation in Italy under the influence of Benedetto Croce and Giovanni Gentile is just the reverse. It emphasizes the immanence over the transcendence of value, ranging all the way from an immanence anchored in the dialectic of the spirit to one based in the existentially and even naturalistically conceived structure of the concrete human situation. Croce affirms that the category of "vitality is a necessary integration of the various forms of the spirit which would lack voice, organs, and power if...they were separated from it."[21]

For Giovanni Gentile,[22] who structures the spiritual act in a more deontological manner, the reference of this act to being is not a transcendent but an immanent one: it is to the very activity of subjects themselves in their dialectic structure. Valuation is a matter of individual self-consciousness, born of and coinciding with the spiritual will. The philosophy of "integral immanence" of these two masters and its inherent axiological difficulties was explored by a rising school of revisionists who develop and deepen some of the idealistic themes, often in new, independent, and unexpected directions.[23] But the rational character of idealist axiology and Crocean values has almost entirely been preserved.[24] Where given up, as in Ugo Spirito, it has been coupled with the deepest sensibility for moral problems and replaced by a substitute perhaps even better suited for understanding the moral life.

Ugo Spirito[25] manifests a counter-reaction of thoroughgoing anti- (or supra-?) intellectualism with phenomenological overtones and with a profoundly moral vindication. The metaphysical premises of Western philosophy, and of Christian philosophy in particular, led to the dogmatism of objective judgments. Those who judge oppose the thing judged to themselves, thus removing it from themselves and from true insight. Gentile's theoretical interpretation of the Act must be replaced by a creative activity of the spirit, and the objective *gegenständliche* relation by a new type that overcomes duality and is based in the love and solidarity between people and things. The same problematic is ethically in Martin Buber[26] in his distinction between the I-It and the I-Thou relation, and logically in Edmund Husserl. The suspension of judgment cancels the particularization of individuals, brings back to each aspect of reality its original value, and precludes the formation of an abstract hierarchy of perfections (see Le Senne).

In Guido Calogero[27] the anti-idealistic reaction led to a personal form of empiricism that revindicates the normative function of the dialogue. Values can be

communicated and comprehended if only the horizon remains open and any definite solution is avoided—as long as we do not make of the *logos*, the transcendental principle of the *dialogos*, a metaphysical hypostatization. This development may lead to a profound deepening of the bases of the British "good reasons" school.

Another development leads toward a form of existentialism with overtones of Le Senne. For Armando Carlini[28] the metaphysical quest arises directly out of the human situation; people are thrown into the external world, yet they cannot base the ultimate reasons of their existence upon it. The contradiction between external necessity and rational exigency can only be overcome by affirming a pure and absolute spirituality that overcomes the conflict. Thus, the value of the individual person unites with Absolute Value, which is God in the Christian sense. Contrary to the phenomenological direction of Max Scheler, who sees in God the idea of Value, Carlini identifies God with value; God is the very existence of value.

Augusto Guzzo,[29] too, considers human experience in the sight of the infinite, that is, of God, and bases value experience on the inevitable human aspiration to reach the divine harmony. But its inherent features—the Good, the True, the Beautiful—are not, for him Platonic prototypes in which human acts imitatively participate. They are reflections or generalizations of concrete and precisely differentiated acts of valuation—aesthetic, cognitive, and so on. The ideality and eternity of values, arising from the exigencies upon us by the Primary Value, are expressions of attributes possessed by concrete acts and must never be metaphysical hypostatizations.

Felice Battaglia[30] also finds a transcendent validation for value. The idealistic thesis, in spite of distinctions made within its dialectic, resulted in such a perfect interrelationship of opposing elements, the rational and the real, the true and the factual, that it almost erased all distinctions and diffused the nature of value. To recapture it, the spiritual act, if it is not to degenerate into factuality, must be put into contact with a Principle that transcends it and gives validation, that is, meaning and consistency, to its historical manifestations. "Value is, in its origin, beyond history, even though historical reality assumes the function to assure its unification and to guarantee its coherence." In this spirit Battaglia investigates specific values of human activities—labor, judicial activity, art—and thus contributes to the human relevance of value theory in the sense of Langmead Casserley. So does, on a different basis, Michele F. Sciacca,[31] who examines contemporary civilization and its chaotic character on the basis of humanity's lost metaphysical reference. Only a new and profound relationship to God can save us. In a similar direction is the philosophy of Guiseppe Capograssi;[32] love in the sense of the Gospel must overcome the chaos of our age.

Non-religious phenomenologico-existential analyses of value are given by Guido Lazzarini, Carlo Antoni, Nicola Abbagnano, and Guido Lazzarini,[33] among others. Influenced by Søren Kierkegaard and Edmund Husserl, they see the definition of value in the subject's openness toward the manifold goals that the intentionality of the spiritual act implies. Antoni[34] locates the dialectic struggle entirely within

individuals: the life of individuals is a Kierkegaardian struggle within their moral conscience between the exigencies of their individuality and those of the universal. Abbagnano,[35] in contrast to the negativism of German and the spiritualism of French existentialism, introduces the category of possibility as the norm of experience and ethical law. Possibility indicates the unstable and precarious structure of experience and its problematic character. Against the romantic myth of necessity and security, Abbagnano insists that "welfare, security, peace, happiness and all we call 'values' which give a meaning and flavor to life—beauty, goodness, truth—are always insecure and mutable." Our endeavor to conserve and augment them does not guarantee success.

This position is far from the idealistic conceptions of Croce and Gentile. With only one more step, we land in the sociological contextualism of the American School. Luigi Bagolini,[36] whose theory is a kind of objectified emotivism, is a transition to it. In an original and ingenious way he uses myth as a category of emotion and a definition of value. Value is a finality fundamental to consciousness and hence is not susceptible of serving as means for further finality. Cognition and will are conditioned by a variety of values that are the spontaneous projections of consciousness and can be considered as myths in the sense of profound emotional manifestations of human life. The reality of myth-value is irreducible to rationality; it is rather an objectification of the emotional, a kind of objectified Stevensonian "attitude" or Jungian archetype. Its origin is not individual but collective and involuntary. Philosophy has the task of elaborating methods with which to interpret the nature of value and resolve the conflicts of various myths. The principal interpretative instrument is sympathy: it constitutes the imaginative openness necessary for interpreters to put themselves into a situation in which myths are apt to exercise an influence on conduct. To discover the intrinsic objective meaning of myth-value, we have to reach an interpretative purity; that is, we must be sympathetic with it through the psychological processes first formulated by David Hume and Adam Smith, then deepened by Bagolini, with allusions to C. G. Jung and Husserl.

From here the way leads to a completely naturalistic direction of existential thought, as in Enzio Paci,[37] who uses the principle of irreversibility—in analogy to the Second Law of Thermodynamics—as a model to interpret the meaning of the historic-natural process. Moving toward the neo-positivist school and its logico-linguistic techniques are investigations such as Ludovico Geymonat's,[38] who eliminates from the concept of rationality all reference to axiomatic self-evident truths and replaces contemplation of absolute truth with the effective methodological operation of people in their actual situations.

Similar reconstructions of reason are in the rigorously immanentist conceptions of value of Franco Lombardi, Remo Cantoni, and Emilio Oggioni. Lombardi,[39] after a full analysis of modern civilization, comes to the conclusion that we must reform the concept of thought itself and understand its essential capacity of self-criticism, which coincides with liberty itself and precedes all logical thought. To this reform corresponds on the moral plane the "dignity of life," regarded as the concrete reality

of freedom, which Lombardi substitutes for the categorical imperative, regarded a merely abstract idea. Cantoni[40] founds the normativity of value in the plenitude of the human situation and not in an abstract metaphysical dimension. Oggioni[41] projects a radical transformation of the concept of truth in the direction of a programmatic pragmatic ideology that makes values sociologically normative.

From the bewildering and bewitching variety of Italian axiological thought, a definite direction emerges toward dehypostatization of value, toward situationally effective axiological inquiry, if not an axiological method. The direction, though implicit rather than explicit, is toward a *science* of value; but the corresponding critical and methodological examination of value form rather than value matter—in the spirit of G. E. Moore—is still missing. The profound insights into and ingenious approaches to value reality offered by Italian axiologists will give to formal axiology, once it is established, a manifold of dimensions and a multitude of themes by which it will have to prove itself. What is now an aggregate of unconnected analytic abstractions will become an ordered segment of a new science, a profoundly significant set of practical applications of this science to its subject matter, value.

As mentioned, the ontological view is prevalent on the European continent, in Latin-America, and in Asia. It is a rich treasure house for axiological material. In Spain and Latin America is the tradition of José Ortega y Gasset, the importance of whose little essay, *What Are Values?*[42] is out of all proportion to its size. His notions of "vital reason" and "authenticity"—central themes of axiology—have found lucid expositors.

Julián Marias[43] explains the concept of vital reason. Life itself is the system that is structured in and functions as human reason; the self is the essential organ of comprehension. Experience—in the existential, not the epistemological sense—is the matrix of conceptualization. Fundamentally, comprehension and valuation are the same. The differentiation of experience in conceptualization is at the same time the differentiation of valuation.

The tie between existential insight and valuation was expanded into the texture of an existential axiology by José Romano Muñoz[44] in vigorous opposition against the value nihilism of Martin Heidegger and Jean-Paul Sartre. Metaphysics, for Romano Muñoz, converts itself into ethics; the universal reference of philosophy is not an abstract but a concrete one, based on the existential relation between the human self and the universe: "*Our being* is a *being able to* which strives to *be more*, a will, an aspiration to be all it *can be* in the full realization of its immanent possibility." This inherent dynamic of the existential self necessitates the conversion of metaphysics into ethics and merges with the *axiologia perennis* of perfection. "If being is essentially being-able-to, then being, as such, is *being-to-perfection*, ontological aspiration, whose ideal content is *perfection* itself, plenitude, the full integration of being."

This culmination of ontology in axiology is complemented and deepened by Luis Recaséns Siches's[45] deepening of axiology into ontology.[46] The phenomenologico-axiological view (discussed in the next section) illegitimately splits the axiological

from the ontological realm. On a deeper level, fact and value are reciprocally related. Although the real and the valuable are different categories and formally independent, yet one seems to exist for the other. Axiology must look for the link between the two realms. Value is not merely as primary a category as Being; it is even more basic. The mind, in building up a world, functions relatively, determined by preference judgments ruling both attention and perspective. The co-presence of the subject with its object, the I with its world, is the primary and basic reality. Consciousness, acting as a selective net, is conditioned by value attitudes. Here, then, axiology is deepened beyond ontology, with a result in naturalistic form like that of William H. Werkmeister. But while Werkmeister interprets valuation psychologistically, Recaséns Siches rejects such interpretations. Values are not projections of psychological mechanisms or reactions, but objectively valid meanings within the context of human life. People do not create values. They are part of the texture of life, there for us to recognize. The structure of human life is conditioned by values. If the capability of judging (of values) were suppressed, human life as such would disappear. A person who could not choose could not think. He or she would be in pure suspension, in absolute abstention. Thus, a fundamental tie exists between valuation and human existence. The network of contexts and situations, which naturalists see on one flat plane, is for Recaséns Siches a multi-dimensional axio-onto-logical manifold. It is phenomenological in a sense in which, for example, Maurice Mandelbaum's axiology is not.

The ontological axiology of the Latin thinkers of Europe is for the future of axiological science a profound source of material. German ontology is even more so, but in a kind of perverted sense that fittingly corresponds to recent events of German history. In Latin Europe the hypostatization of valuations into Values proceeds in a rational fashion and with results that will have to be confirmed by formal axiology; what this value ontology calls value must correspond to formal value, and what it calls disvalue must correspond to formal disvalue. By contrast, the ontological discussion in Germany under the influence of Martin Heidegger went in an irrational if not nonsensical direction, with results that formal axiology will have to disprove—in the sense of calling value what this ontology calls disvalue.

The battle between humankind and Hitlerian nihilism was by Martin Heidegger philosophically transposed into a battle between ontology and axiology, or between Being and Value, with Hitler on the side of Value—and hence of Non-value, for Value—not being Being—was not really value; Being seen as Value lost its being as Being, and hence as Value. This argument goes the naturalistic fallacy one better by identifying Value with Non-Being and Being with Non-Value, yet supremely valuing Being. It is as if a hedonist would identity pleasure with value—thus committing the naturalistic fallacy—and then continue: If pleasure is identified with value, pleasure ceases being pleasure and becomes value. To speak of value then is hedonic nihilism and the devaluation of pleasure.

That this is nonsense is obvious. It means that A is both A and not-A. If pleasure is value then value is pleasure. If A = B then B = A. It is nonsense to say

that if A = B, then A ≠ A, hence A ≠ B. Yet, such is Heidegger's argument. Instead of treating it as a Lewis Carrollian joke, Germans took it so seriously that the axiological discussion in the second post-Moorean period revolved around Heideggerian value nihilism, and the word "value" actually fell into disrepute. Heidegger's claims that "Nobody dies for mere values," "Thinking in values is pure nihilism," "Thinking in values is radical killing," and similar Heideggerian statements made a deep impression on the German generation returning from Hitler's battlefields.

Martin Heidegger[47] saw in axiology nothing but an *Ersatz* for the lost metaphysics of being. Since Immanuel Kant and the neo-Kantians banished Being to the noumenal, and in the process of cognition called into being phenomena that were not Being, a substitute for Being had to be produced, which was Value. Thus, "Value is the objectification of the desirous aims of the cognizing settling down in the world as image." ("*Wert ist die Vergegenständlichung der Bedürfnisziele des vorstellenden Sich-einrichtens in der Welt als Bild.*") Heidegger suggested, in a characteristic *argumentum ad hominem*, that value philosophers deal with value only in order to impress on others that they deal with the most valuable—whereas the most valuable is not value but being—which is Heidegger's bailiwick.

Heidegger's value philosophy, going back to *Sein und Zeit*, is epitomized in his analysis of Friedrich Nietzsche's words, "God is dead."[48] Here value is definitely and explicitly identified with non-being and hence non-value—with nihilism. Nihilism, according to Heidegger, is the life-blood—or rather death-blood—of modern metaphysics; it is the fundamental movement (*die Grundbewegung*) of Western history; it is the devaluation of the highest values by valuing. After the "death of God" a new principle is needed, which Friedrich Nietzsche posits in *The Will to Power*. Value thus becomes a standard for the will to power, which now expresses the reality of the real. As a new nihilism, it had to overcome the old nihilism of historical "metaphysics" and, in doing so, to become something positive. But, insofar as it thinks value rather than being, it suffers from the same disease as that which it is to replace, and its positivity again relapses into negativity. For, value can never take the place of being. Value and being being distinct, valuing obstructs the being of being if it tries to overcome it and take its place. The separation of nihilism becomes the very culmination of nihilism; "If value will not let Being be being Being, which as Being itself it is, then the supposed overcoming is first of all the completion of nihilism." ("*Wenn jedoch der Wert das Sein nicht das Sein sein laesst, was es als das Sein selbst ist, dann ist die vermeintlich überwindung allererst die Vollendung des Nihilismus.*")[49] The greatest blow against true value then is valuing; and the ultimate blow against God is valuing him. God "is being devalued to become the highest value" ("*zum höchsten Wert herabgewürdigt*").[50] To value God, the being of being, as the value of values is the "supreme blasphemy." Like all false prophets, those who strike down God this way disguise themselves as His high priests. "The non-thinking of Being disguises itself in the appearance of representing Being in the most worthy fashion."[51]

Heidegger gives both immoral and illogical twists to what G. E. Moore calls the naturalistic fallacy, in its aspect of confusing being and value. For Heidegger, to

commit this fallacy is a betrayal of being. The fallacy consists not in diluting the value nature of Value by making it dependent on being, but on diluting the being nature of Being by making it dependent on value. Being, in other words, is more valuable than value; or rather, being *is* more than value is valuable. Instead of the being of value being more fundamental than the value of being, the value of being is more fundamental than the being of value; or rather, instead of the value of value being more valuable than the being of being, being being the being of being is more being than the value of value is value.

Unfortunately for Heidegger's argument, this is a question of value and not of being, the question namely of what is the more fundamental philosophical truth, that of being or that of value. A question of comparison of two things by a standard—be it truth or whatever, be it with respect to being, truth, or coathangers—*is always a question of value*. Whenever there is a competition between thinking in terms of value and thinking in any other terms, whether being or what have you, value thinking must necessarily take the prize because *competition is itself valuing*.

Heidegger is right, in a Lewis Carrollian sense, in saying that "thinking in value shuts off being, from the very beginning, from essentializing in its truth." ("*Das Denken nach Werten laesst im vorhinein das Sein selbst nicht dahin gelangen in seiner Wahrheit zu wesen.*")[52] Logically, nothing can be done about this, just as nothing can be done about +1 not being -1. This logical truth can be obscured by sophisms, but they cannot make it false, for they contain contradictions against the very procedure they employ. To prove that +1 = -1, let $x^2 - 1 = 0$. Since $x^2 - 1 = (x + 1)(x - 1)$, if we divide $x^2 - 1 = 0$ by $x + 1$ we get $x - 1 = 0$, or $x = +1$; and if we divide it by $x - 1$ we get $x + 1 = 0$, or $x = -1$. The fallacy is the same as a favorite one of Heidegger, not defining the nature of Zero, or Nothing. Thus, Heidegger's axiology, or rather his anti-axiology or ontology, is a sophism. It is pseudo-thinking, for it contradicts its own procedure. It is actually a joke on philosophy, comparable only to the later Wittgenstein's. Both are anti-Socratic, and both confuse thinking with word games. The words Wittgenstein plays with are those of common sense, and the words that Heidegger plays with are those of uncommon nonsense. Both see, to speak with Heidegger, in "the reason celebrated for centuries the most obstinate adversary of thinking" ("*die seit Jahrhunderten verherrlichte Vernunft die hartnäckigste Widersacherin des Denkens*"),[53] and both believe themselves to be radical renovators, revolutionaries of a new way of philosophizing. Both are mistaken, for both commit logical fallacies. (In the case of Wittgenstein, the fallacies were not committed by him but by his followers.)

The question comes down to asking whether fallacies make any difference in philosophical thought. If we say they do not, philosophy is reduced to a joke, if not a hoax; specious and genuine dialectic must be distinguished.[54] If moral philosophy today is in the alchemistic stage, Heidegger's and to a lesser degree the Wittgensteinians' antics in this field may be compared to those of the great alchemistic prestidigitators who awed crowds and courts with their magic arts—Seyler, Hofmann, Richthausen, Sir Digby Kenelm, Nicolas Flamel, and others—who had found the

philosopher's stone and with its help ("Take as much of it as a bean, throw it upon a thousand ounces of mercury...") performed miraculous transformations into gold, some of their works still being preserved in special coins of pure gold. Only dilettantes in the art, such as Honauer, were hanged—usually on elaborate gallows fashioned from their own products.

If we say fallacies do make a difference, then truth is still found only by rational thinking. Neither its trivialization in common sense nor its ornation in uncommon nonsense can provide the solution of problems at once so profound and so straightforward as that of value. As Moore saw long ago, and Plato long before him, the relation of being and value finds its solution in extending the naturalistic fallacy to ontology. Kierkegaard elaborated this in his doctrine of subjective truth—finding *the essential truth of being in value*, which means finding the essential truth of value in being as essentially value. For essentiality is itself a value term, and it is so whether the essentiality is one of being, of value, or what have you.

The phenomenological method is a method of valuation, and the establishment of special phenomenological axiologies is a redundancy. Phenomenology is itself axiology: when a thing's essence is discerned, the thing is intrinsically valued. The confusion between being and value is already found in Heidegger's master, Edmund Husserl.[55] The essentiality of being is value; it is the essential *value* of being; and so is the essentiality of value itself, the essentiality of a butterfly and that of a coathanger. Essential being, in other words, is a value, and essential value a being, only in so far as essential being is a value. Value is the genus and being the species. Ontology, thus, is a species of axiology, not axiology a species of ontology. It is not a "substitute" for ontology, and it did not come into being after Kant. It superseded ontology from the very beginnings of philosophy in Socrates and Plato, for the simple reason that without it ontology cannot become rational. That axiology has never fulfilled its promise to ontology is another matter. Its full *problematic* only came into being with Kant and it culminated in Moore. It might be resolved by my interpretation of Moore's paradox—"The two different propositions both true of goodness"—as the axiom of formal axiology.

Ontology cannot "unmask" axiology, except, perhaps, one equally as vague and arbitrary as itself. Ontology, if it is to be a genuine rational discipline, must use value categories. If it does not use them, or using them denies them, it is not a genuine such discipline.[56]

All this has not remained hidden in Germany. The "unmasking" of valuation, although it appealed to a generation led astray by an extravagant and perverted valuation—in which Heidegger had prominently joined—led to a vigorous counterattack that unmasks the "unmasking," tries to bring reason to bear against the dialectic of axiological nihilism. It attempts to disentangle the mesh of para-, caco-, pseudo-, and etymo- logisms ("*Umwortungen*," which means "transwordings"), to clean up the deposits of the logorrhea, and to penetrate to the essence of value.

In the forefront of this hygienic task force stands F. J. von Rintelen[57] whose value realism, on the basis of historical scholarship,[58] focuses the clear light of

classical German tradition—of G. W. Leibniz, Immanuel Kant, and especially Johann Wolfgang von Goethe—on the devastated science. Value and being not only do not oppose, they complement each other. Value, like being, represents an objective order: it is a spiritual content (*Sinngehalt*) that can be realized as goal of conscious or unconscious striving in various degrees of perfection. As relational value (*bonum secundum quid)* it is utility and related to human subjectivity. As intrinsic value (*Eigenwert) (bonum in se)* it is objectively real, part of an ontological order and subject to a value logic, an axio-logic, which philosophy's task is to determine. The historical reality of value can be understood in a vertical-horizontal pattern, the first in the dimension of real value (*Real-Wert*), the second in that of ideal value (*Wert-Idee*). Real value is value realized in historical situations, in various *depths*, depending on the degree of fulfilling the ideal in question. Ideal value gives the *breadth* of value in horizontal variety and differentiation, which may or may not be realized in a concrete historical situation. The aims of a culture—as well as of an individual—must be to realize as many value forms as deeply as possible. Thus an ontological order of values appears that points to a transcending metaphysical Absolute objectively determined as the Infinite. Heidegger's error, F. J. von Rintelen points out, is his limitation to relational value. Representation (*Vorstellen*) is not only a negative matter in Heidegger's sense, but of positive significance when a spiritual content is being represented. More deeply, von Rintelen brings to bear against Heidegger the whole *philosophia perennis,* against which Heidegger tried to erect his own counterorder. Von Rintalen's way, as it was expressed felicitously, is a highway (*Höhenweg)*, as against Heidegger's forest trails (*Holzwege*)[59]—a highway that overlooks the jungle in which Heidegger makes his ceaseless and fruitless rounds "*auf dem Holzwege*," lost in the underbrush.

Some of Heidegger's friends, meanwhile, whom we may call semi-anti-axiologists, are busy on *Waldgängen* (forest promenades) trying to chart the woods from the inside, finding clearings and rational picnic spots[60] in so far as metaphor is progress beyond contradiction. We find the same tortuous development toward rationality from Heidegger's ontologism as we found from Alfred Ayer's and Ludwig Wittgenstein's positivism. As Stephen E. Toulmin's and others' retail rationality was progress beyond wholesale irrationality, so E. Jünger's and others' attempt at clearing the woods is progress beyond getting lost in the underbrush. As the naturalistic position was a thoroughly rational accounting for things that are valuable—even though not of values—so von Rintelen's is a thoroughly rational account of values—though not of Value itself. Von Rintelen reproaches the Heideggerian existential philosophy as formalistic, and rightly so, for it is formalistic in the sense of playing linguistic games ("*Versteckspiel*," hide-and-go-seek) and making the best (and the worst) of the lack of content of abstract philosophical language. It is analytically formal, but it is not synthetically formal in the definite and rational sense in which I use the term. While von Rintelen's alternative to the game character of existential philosophy is material value statements (analytically material in my sense), my alternative is formal value statements (synthetically formal). Von Rintelen's alterna-

tive leads to values while mine leads to Value. Both stand in opposition to the "affected extremism" and material irrelevancies of Heideggerian philosophy.[61] But the values von Rintelen recounts, being spiritual rather than naturalistic, mirror much closer the nature of Value than the naturalistic naivetes.

While von Rintelen brings to bear against Heidegger's counterorder the order of classic tradition, other writers delve with the same penetration into the nature of rationality as Heidegger into that of irrationality. Hermann Krings[62] deepened Truth into Integrity (*Lauterkeit*). Integrity, the mutual correspondence of essence and existence, is the ontological dimension of Truth. The ontological dimension of Falsehood is the Demoniac. The Demoniac tries to erect, against the ontological order, a counterorder and realize a non-essence, an ontological monstrosity (*Unwesen*), in the light of which reality appears distorted, out of place, out of joint—and horrible (*ent-setzt*).

What I said of the Italian is true of this ontology: it is a model on which formal axiology will have to prove itself; as such it is a profound suggestion of a future logic of value and a proof of the essential rationality of the value world. This rationality is expressed in many variations all over the world, from the profoundly original creation just discussed, to the modern restatement of age-old axiological insights, such as Aristotle's and Plato's virtues, or the Indian purus rthas.

Engelbert Gutwenger,[63] in an original combination of Aquinian and naturalistic elements, brings the notion of perfection up to the date of an empirical age. Value is always value-for, relational value. This value relationality is of a causal nature such that the thing or person in question is being perfected (*vervollkommnet)*. Perfection is actualization of the potentialities inherent in the thing or person. Whenever a thing acts destructively it does not have the value relation. The definition of value then is: perfecting causality (*vervollkommnende Kausalität*). The genus of this definition is "causality," which may act either constructively or destructively; the species is "perfecting," which limits causality to the essential nature of value. The Aquinian element of the definition is the species, while the naturalistic is the genus. We may also call it the Kantian or categorial aspect and regard the definition as similar to McCracken's, with scholastic overtones like Gustav Siewerth's.[64]

The Platonic restatement is found primarily in German Switzerland. Hermann Gauss[65] applies the Platonic triad of Truth, Beauty, and Goodness as a pattern of kinds of lives, each of which is supreme in its kind. His is a commitment to a vital consistency, the total of all these commitments forming the absolute value of life in the Eternal. In Fritz Medicus[66] the Platonic position is reformed in the direction of Ortega y Gasset and Recaséns Siches: philosophy, in contradistinction to science, which is primarily the work of the intellect, appeals to the whole person, trying to elicit in us a conscious awareness of eternal, supra-temporal values. Beyond the Platonic triad of Truth, Beauty, and Goodness he recognizes a fourth value, Justice, which regulates human social life. The recognition of values is for Medicus, too, an essentially religious act, although he admits no religious "value" alongside or with other values. Values permeate the whole of human existence and are presupposed

wherever there is thought and action based upon thought. The mission of philosophy is to make the unconscious recognition of values conscious and by doing so to give value-judgments a coherent structure.

Unfortunately, Medicus does not tell us the principles on which the value realm should be structured. We meet here the inherent limit of any ontological treatment of value: lacking formal principles, ontological axiologist can base the structure of the value realm only on analytic guesses, vaguely inspired by the implicative power of material concepts. Since this power is endless—every implication implies another, implying a third, implying a fourth, and so forth—and ontological materiality has no natural ground at which thinking can come to rest, as has naturalistic materiality in empirical observation, the ontological axiologist is like a diver into infinite depths. He must either halt at a predetermined point or else just come to rest at some point out of sheer exhaustion; like Frederich Schiller's Diver, he will never be satisfied, no matter what he brings up from the depths, and will always delve back again, only to meet with more frustrations.

Paul Häberlin,[67] after exhausting all ontology, comes to the conclusion that in order to be able to speak of values at all we must go beyond "being" and postulate a "ground" of all Being, which, however, must not be dissociated from Being, but from which Being derives its ultimate meaning. Hence, Häberlin adds somewhat whimsically, knowing the meaning of Being we know that of the ground—which brings us back to ontology, but also makes the "ground" superfluous. This is an ingenious device to stop our fall into the depths—an ontological counterpart to Nowell-Smith's trapdoor. If we follow Häberlin's direction to the depths, we either find, in the manner of Frederich Schelling, the *Urgrund* as the contradictory of Being (and hence, at strategic moments, obstructing the meaning of Being—as Disvalue) or else as the vindication and source of these meanings, as Value. In the first case, we must ask what that is from which both Being and Non-Being have split, and in the second case on what grounds the ground of Being derives its meaning. In both cases we are led to an infinite regress. No matter how we turn, then, ontological value thinking can never possibly find a satisfactory foundation either for Being or for Value. All ontological constructions are in the last resort projections of the implicative method, reifications of the mind's incapacity to grasp the nature of reality and of value by analysis. Ontological value thinking is always material and never formal, always of that which is valuable but never of that which makes it so. As does naturalism, it presupposes the value nature of what it calls value and thus begs the axiological question. Moore, therefore, rightly classified it with naturalism as committing the "naturalistic" fallacy.

Eastern axiology, especially Indian, is in all respects very close to European value metaphysics; it only elaborates more its humanistic emphasis. The ontological direction is thus tempered not by greater cognitive insight but by greater pragmatic relevance—a kind of "transcendental pragmatism" that becomes powerfully manifest in the life and work of Mahatma Gandhi. That an ontological axiology of this kind could become practically efficient in India confirms my thesis of the correspondence

of culture and axiological form.[68] In the still pre-technological and to some extent medieval society of India, a philosophy could become morally and politically efficient which in form, though not in content, would be an anachronism in the West. Compare the respective efficiency and influence of Gandhi in the East and his master Henry David Thoreau in the West.

Axiology, the conscious pursuit of Value (*phala-prāpti*), is one of the two divisions of Indian philosophy, the other being the discovery of Fact (*artha-parischitti*), which entails the first. The ontological basis of Indian axiology is suggested by the meaning of the Sanskrit word *sat*, which means both "real" and "good," while the pragmatic teleological direction finds expression in the term *bhavya*, meaning both "future" and "what is auspicious," suggesting that the best is yet to be.

The Sanskrit term for Value is *iṣṭa*, "the object of desire"; its opposite is *dviṣṭa*, "disvalue." Value is what we aspire for, what is to be realized, and what is possible of realization, *s dhya:* what is "rationally willed." What is *desired* and what *ought* to be desired are both Values. *Puruṣārtha* means "human values": our *conscious* pursuit of values. Both human beings and animals seek satisfaction of their natural impulses, but human beings alone seek their *conscious* satisfaction. *Puruṣārthas* are, therefore, values consciously pursued or *Human Values.*

Analogous to the four Greek cardinal virtues, Indian though recognizes four cardinal values: *Artha, Kāma, Dharma,* and *Mokṣa. Artha* (economic value) and *Kāma* (satisfaction of desire) are regulated by *Dharma* (moral value). The Mimāmsaka School in Indian philosophy considers that *Dharma* is an *intrinsic* value, a value that is an end in itself. Otherwise, the Mim msakas say; *Dharma*, which is more exalted than *Artha* and *Kāma*, becomes inferior and utilitarian like *Artha* and *Kāma.* Like Kant, the Mimāmsakas teach a doctrine of *respect* for the Moral Law, its absoluteness, and its unconditional nature. The philosopher Samkara rejected this view. He regarded it as psychologically unsound since it assumes that voluntary activity is possible without some end, or that it becomes its own end (*svayam-prayojanabhuta*). Such a theory, said Samkara, reduces the gospel of duty to a gospel of drudgery: Devotion to duty is present toil, dereliction of it future evil; so whether a person does his duty or neglects it, his or her lot is always trouble in life. For this reason the Mimamsaka view of *Dharma* has not prevailed in Indian thought.

Dharma is an instrumental rather than an intrinsic value, in a "lower" and a "higher" sense. The first is its utilitarian aspect: moral Goodness will eventually and very slowly—like God's mills in the West—bring success and abundance (*abhyndaya*). The second is its strictly moral and usual sense: the purification of the agent's character (*sattva-suddhi*). This is brought about through the active performance of the duties of our station in life, the work that is near at hand, without egoistic intention or motivation (*niskāmakarma*). It is freedom from the lower self, *samnyāsa* or renunciation, but it is not negation of the world. Indian thought teaches self-*affirmation* in discipline and self-*negation* in service to others, but not world negation. *Dharma* is a necessary and sufficient condition to reach *Mokṣa*, the Highest Good, or *Intrinsic Value*, an existential state of Being, of growing into the larger Self, an experience of

bliss (*ānanda*). Indian axiology culminates in a kind of existential or transcendental Hedonism (*Jivan-mukti*, "liberation during life"). *Mokṣa* is *not* gaining anything new but is the recovery or recollection through *dhyāna* (meditation) and *yoga* (moral and spiritual discipline) of that which is *intrinsic* to one's self. As such *Mokṣa* is what is truly "normal." It is "ever-attained," *siddha*, against the other *purushartas* which are *sadya*, "to be attained" or extrinsic.

This basic axiology is applicable to specific value experiences, aesthetic, political, and such, in all of which is found *ānanda*, the experience of delight in being. Thus, *ānanda* is the clue to the mystic aesthetics of Vedānta: the saints are the greatest artists for they, like Søren Kierkegaard's "Knight of Faith,"[69] have mastered the art of living; here and now they experience the delight of existence under all circumstances, above and beyond the routine and the imperfections of life ("*avidyā-kāma-karma*," "ignorance, blind desire, entangling action"). *Ānanda* is equated with Brahman, the one reality without a second, and the universal inner harmony. It is a characteristic of enlightened individuals that they experience *directly* and realize by their active living this delight of existence.[70]

Indian thought includes a highly elaborate ontological axiology that overcomes the vagueness of analytic concepts by devising an exact—and exacting—method of moral living. In some sectors of Indian society and in some periods of Indian history, especially the epochal life and work of Gandhi, this philosophy has shown its social efficacy. It was continued in the vital economic sector by Acharya Vinobe Bhave. His tenets—that economic goodness and ethical goodness imply each other and that social revolution means human valuation—are stated for and within the context of the West by Robert S. Hartman.[71] In other sectors and periods it has failed. On the whole, considering the social and political actuality of India, it has failed more than succeeded, though it has probably succeeded more than has Christian axiology in the West. Both in the East and the West, therefore, an axiological pattern must be found that will lead to moral action as thoroughly as the mathematico-empirical pattern has led to technological action. Western people cannot be brought to moral action in the massive Gandhian sense by the medieval pattern of contemporary axiology, or by individual exercises such as *yoga* and *dhyāna*. These patterns will not long remain efficient in the progressively modernizing Indian society. In both the East and the West, a formal and synthetic pattern is needed that contains its own method of action, not only for select individuals, but for all people as part of their rational living.

Ontological axiology, in fusing Value with Being, is an obstacle to such a development. Instead of explicating the fundamental relation of axiology, that between fact and value properties, it collapses it, fusing both kinds of properties in one great reifying, substantializing hypostasis. In phenomenological axiology we get closer to our goals for there the hypostasis at last separates cleanly, or as cleanly as hypostatically possible, the two realms.

B. Phenomenological Empiricists

Phenomenological empiricists experience cognitively a value realm *sui generis*, independent of and different from the ontological realm of Being. They are pure axiologists in the sense that they do not confuse value with anything else, either physical or metaphysical, even though they hypostatize value into Value, ought into Ought, and so on. The fundamental axiological relation becomes in turn hypostatized, as one between Being and Value, Is and Ought, and the like. The prototype of this phenomenological hypostatization is the great work of the first post-Moorean period, Nicolai Hartmann's *Ethics.*[72] The fundamental axiological relation here becomes a cosmic tension between the ontological and the axiological realms. Both these realms are for Hartmann aoristically separated, and between them stands the synthesizing entity, the moral subject, converging the whole tension of the two worlds toward her or his own heart—the Arnold Winkelried of the axiological battlefield.

> The attitude of the subject to the Ought is the central point in the ethical problem.... The subject as a practical agent is the intersecting point between two heterogeneous determinations or powers; at the same time it is the battlefield where these powers clash with each other within the one real world. Hence the restlessness in the nature of the subject, his continued confronting of decisions. Thus it comes about that the Ought, although it is not rooted in the subject, but confronts him as a positive claim, nevertheless, as a positive tendency in the real, can attach itself only to a subject, and can determine reality only through a subject.[73]

The subject is the knight of the Ought, the standard-bearer of the potential in actual reality. The efficacy of axiology, which in the value ontology of Indian thought is guaranteed by a method, is guaranteed in Nicolai Hartmann's value phenomenology by our human affinity to both the ontological and the axiological realms. The axio-ontological structure of human persons brings the hypostatized axiological relation down to earth. The whole process is somewhat fanciful, as befits a brilliant analytic presentation, for the necessary lack of precision of the analytic method can be made up for brilliantly either by artful verbal convolutions, as in Heidegger or the Wittgensteinians, or by a poetic imagination that entrusts to metaphor what formal precision would entrust to logic.

The realm of the Ought is not one of quietness and serenity; it is one of striving and dynamic struggle. Hartmann's precursors as architects of the ideal world are Plato, Aristotle, the Manichaeans, Jacob Boehme, Friedrich Schelling, Eduard von Hartmann, Henri Bergson, and, in particular, Arthur Schopenhauer. Hartmann's values, like the Platonic ideas in Schopenhauer, are "incurably gluttonous."[74] The Ought "forces its way into the indifference of the real, in that it gains a power over one of the worldly entities."[75] It grips a person and makes him or her its subject, as does Zeus the unsuspecting Ganymede. Hartmann's ideal Ought-to-Be has more

Olympic qualities, being "of course as indifferent to the subject as it is to existence....But the *positive* Ought-to-Be is not indifferent; for its unfoldment in the existing world does depend upon the subject."[76] The division between the ideal and the positive Ought-to-Be is an artificial construction within Hartmann's axiological metaphysics, necessary in order to combine its Platonic aloofness with its Schopenhauerian dynamics—to explain the efficacy of the axiological realm. "The positive Ought-to-Be does not lie within the ideal realm. It issues thence, but extends into the real; and in so far as it is a determining factor there, its activity is a real creativity, a bringing forth."[77] Like Zeus as Olympic Lord of gods and men and Zeus as the eagle of Ganymede or passionate lover of Leda and Europa, the ideal and the positive Ought-to-Be, Janus-like, a kind of Olympic Dr. Jekyll-and-Mr. Hyde, rules Hartmann's ethical cosmos.

This construction is interesting but unconvincing. The "ideal Ought-to-Be" is a fiction, set up for the sake of an ideal position that is not consistently maintained. The entire realm of values is a dynamic, throbbing realm; its ideality is a dynamic ideality, corresponding to the dynamic reality in which it becomes active. Conversely, the real corresponds in its creative activity to the same qualities of the ideal: "The real dynamic or the finalistic series corresponds to the ideal dynamic or the Ought-to-Be."[78] To maintain the artificial separation between the Platonic valuational realm and dynamic reality, Hartmann reverts to Aristotelian language, setting up the ideal as the prime-mover, unconcerned and unmolested in the yonder realms, yet somehow causing the dynamic flux of the ethical cosmos. "Values are genuine 'first movers' in the Aristotelian sense; from them proceed creative energy, productivity fashioning actualization. Value is the power that stands behind the energy of the Ought-to-Be."[79]

Hartmann's theory is a perfect example of the hypostatization of value. As in the ontological reification, the logical relations of formal axiology appear here in a magnifying mirror and must be dehypostatized, cut down to size, re-translated into relations of the logical matrix from which the poetic imagination of the philosopher lifted them. The "ideal Ought-to-Be," then, becomes the simple logical relation between a thing lacking and a thing having its definitional properties—for a thing that is a member of the class C and lacks some of the properties of C *ought to have* these properties: the class concept serves as norm for the thing's possession of its properties; the "positive Ought-to-Be" becomes the rules of application of formal axiology.

G. E. Moore saw the phenomenologically unique character of value, but he abstained from fanciful elaborations of this intuition and limited himself to stating the logical implications of such uniqueness. But since Moore merely stated and did not elaborate this uniqueness, the logical implications seem to hang in the air, like the grin of the Cheshire cat. For this reason Moore found more critics than followers. Among the followers are Thomas Hill, as previously mentioned, and R. Corkey.[80] Nicolai Hartmann and Max Scheler, who fill in the phenomenological hull of value, became heads of schools and subjects of a large monographic literature.[81] The paradox of the phenomenological position is either to be formal and then lead to

logical implications that seem empty, or to be material and then lose itself in metaphors.

In his later axiological writings, which we may count to the second post-Moorean period, Nicolai Hartmann's analysis became sharper and turned away from his original hypostatizations. He gave us a deeper analysis of teleological thinking, supplementing his account of the "threefold finalistic nexus" in the *Ethics*,[82] and a clearer insight into the relations between the "positive Ought-to-Be" and the human will, and the will and moral feelings. This dehypostatizes, to a certain extent, the Ought-to-Be and throws light on the difficult distinction—not possible in any other axiological position—between the emotive and the valuational.

> Value feeling has an entirely different relation to value than the will. The will is free with respect to values, it is not forced to follow the moral command.... The feeling of value...is not free in this respect, it is quite clearly forced by the values: once it has grasped the meaning of a value it cannot feel differently or take a position other than the value commands. It cannot regard good faith as wicked, cheating and deceit as honorable. It can be value-blind, but that is an entirely different matter: in this case it is not responsive to values, and does not comprehend them at all[83]

—like a person who is color-blind, or unmusical, or lacks mathematical talent.

Hartmann makes clear that the value capacity is a rational one; thus the *Forderung*, the claim of values upon persons, is a rational claim. Only his ontological bias prevents him from going a step further and stating that this is so because the value realm is itself a logical order, a value-logical or axio-logical rather than an onto-axiological one. It is, as Ortega y Gasset made clear from the phonomenological view and Margenau from the scientific side, a quasi-mathematical order, that is, an order as formal as mathematics but whose axiomatic content is not that of Number but that of Value. The "claim" of the value realm, then, is the same kind of claim as that of mathematics, of logic, and of any other formal discipline: the claim upon our rational understanding.

In Hartmann's second post-Moorean account this becomes crystal-clear. The validity of the axiological order resides in its rationality; the moral agent only accepts as valid what he (or she)

> understands and ascertains; he recognizes only what is clear to him. All appeal to mere authority is impossible. The 'doctrine' given to him must be convincing; the rules of society, the ideals of life of elders and experts, even the 'laws of God' must be convincing.[84]

This convincingness, this intelligibility of the value realm, is the subject matter of all great sociological thought, from Plato through Kant to Scheler; but the mechanics of how this "*a priorism* of the knowledge of good and evil," this rigorous order

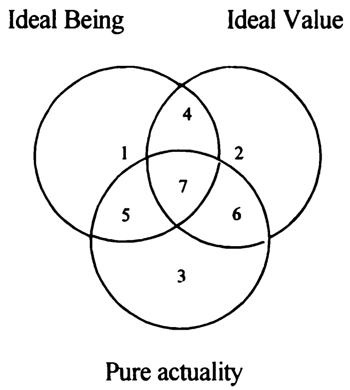
of axiological insight and its objective validity,[85] realizes itself in human action is still unknown. All descriptions of it "remain stuck in generalities."[86] Hartmann tries to approach it by an empirical account of how the feeling of values manifests itself in human situations;[87] but he does not thereby come closer to the core of the matter; he must, he believes, content himself "with certain fundamental characteristics which have become apparent so far."[88]

Actually, all these characteristics fall into a pattern, like the pieces of a puzzle, as soon as it is recognized that the "*a priorism*" of the value realm is nothing but the *formal nature of value*: values constructed, as are phenomena in natural science, as an axiom and developed in a deductive order—according to my preceding proposition (5) given above on pp. 81 and 165. The "chain" of the value realm is then the necessary practical aspect of this order. The various fragments of value insight that the phenomenological account assembles are like pieces of a broken mirror that reflect the formal nature of value. Formal axiology must present the mirror in its wholeness.

The phenomenological position was developed in the second post-Moorean period in many directions. Johannes Hessen[89] gives the following "moments" by which Being and Value differ: (1) Value is irreal or ideal being (validity); Being is real being (existence); (2) Value is abstract, non-sensory; Being is concrete, sensory; (3) Value is normative, an *ought*; Being is actual, an *is*; (4) Value is polar, positive and negative; Being is unitary; Negative value is still value, but negative Being is no more being. In a formal translation, the confusion of these four moments, based on merely verbal distinction, becomes clear, and the phenomenological position becomes: (1) Both the value and the fact order have a real and an ideal component. The ideal component of the value order is formal axiology; the real component is the world of value phenomena. The ideal component of the fact order is mathematics; the real component is the world of natural phenomena. The difference between the two orders in the ideal realm is that between formal axiology and mathematics; the difference between them in the real realm is that between descriptive (value-making) and value properties, the fundamental axiological relation. (2) Value is abstract, non-sensory while Being is concrete, sensory. The difference is the just mentioned one, the fundamental axiological relation. The "abstract" nature of value is its second-order quality as referring to the totality of value-making properties. (3) Both Value and Being are normative and actual, both *ought* and *is*. The relation between *ought* and *is* depends on the difference between the ideal and the real order. *Ought* vindicates the requirement of the real order to be organized in accordance with the ideal order. Since both Value and Being consist of an ideal and a real component, both are subject to both *ought* and *is* relations. "John ought to be honest" and "John is honest" are both value propositions, and "circles are round" and "circles ought to be round" are both fact propositions.[90] (4) Both Value and Being have a polar structure. The polarity is between order and disorder. Actual value is what corresponds to the ideal value order and actual disvalue is what does not correspond to this order. Actual Being is what corresponds to the ideal fact order and actual

dis-being is what does not correspond to this order. Neither value nor being can be "negative" in the sense of "non- value" and "non-being." Both can be negative in the sense defined, as dis-value and dis-being.[91] To these four translations must be added a fifth point which follows from these translations: (5) The orders of Value and of Being are parallel. What is value also has being, and in the same degree; what has dis-value has dis-being, in the same degree. Thus a two-headed calf is as little a calf as it has value as one; a square circle is as little a circle (or a square) as it has value as one. What fully is has value as such. With this point formal axiology approaches the classical value ontology. These inherent logical relations come out in value phenomenologies in different ways, so that Value and Being in them oscillate closer to or farther from each other.

Following a model of Eduardo García Máynez[92] the logical possibilities of the relationship between actuality and the ideal realms of being and value could be represented by three overlapping circles that would give seven sections: (1) ideal being (categorical and scientific ontology), (2) ideal value (categorical and scientific axiology), (3) pure actuality (as possibility of concretion of either or both idealities), (4) the overlapping of the two ideal realms (the value of science and the science of value), (5) the overlapping of actuality with the ideal realm of being (the categorical and scientific cognition of factual reality), (6) the overlapping of actuality with the ideal realm of value (the categorical and scientific cognition of value reality), and (7) the overlapping of all three realms (actuality seen in its ontological and axiological reality).



García Máynez uses this schema to clarify the logical interrelationships between juridical and axiological ideality and juridical reality, that is, instead of the ontological order he uses the juridical order. The three realms then are positive law (juridical ideality), moral law (sociological ideality), and social use (actuality). The three realms again overlap in three circles, forming seven sections of combinations of norms, only one of which is the coincidence of all three realms, and hence *valuable legal actual-*

ity. Such coincidence is very rare; indeed, it is in historical reality the exception rather than the rule. The reason, says García Máynez, is

> the narrowness or narrow-mindedness (*Engherzigkeit*) of our value feeling. The cognition of the values which the law is to realize is far from perfect. Furthermore it is not sufficient merely to know these values;...also the norms must be created which in the various legal situations make possible their realization.[93]

The same must be said of the ontological-axiological relation to reality. The solution, I find, is a formal axiology that would bring about not only a valuable ontological, but also such a juridical actuality. For García Máynez, the law is regarded as a means of realizing value; value is normative for the law—a thesis exactly opposed to that of those who, like Stephen Toulmin, Hector Rodriguez, and others, want to make the law normative for ethics. This axiological school puts the cart before the horse and, together with W. D. Lamont and others, uses specialized axiological disciplines as normative for the genus.

Writings in jurisprudence, economics, politics, and so forth, abound with axiological problematic; but most writers understand that the problematic must be solved by a science of axiology normative for their discipline rather than by their discipline serving as norm for axiology. Lacking a formal axiology, axiological writings in jurisprudence cannot be more precise than writings in axiology itself. Hans Kelsen writes in his "conclusion": "I do not know, and cannot say what justice is, the absolute justice for which mankind is longing....'My' justice, then, is the justice of freedom, the justice of peace, the justice of democracy, the justice of tolerance"[94] —in other words, the justice that is as undefined as are all these other value terms. It is strikingly obvious from such "conclusions" that what is needed is an overall system of axiology.[95]

Axiological significant legal studies have been produced by many writers. Georg Cohn pleads for a human-centered existentialist law, and Edmand Cahn studies the "sense of injustice" as the basis for an "anthropocentric law" and probes into moral decisions in the law.[96] Gerhart Husserl produces a phenomenology of legal cases, and Günter Less and many others discuss the relationship between moral and legal values from the point of view of an objective axiology.[97] Others like Guido Fasso take a non-rational point of view that assumes a total qualitative leap between juridical land moral values; but Luigi Bagolini takes an intermediate position.[98] Axiologically significant discussions in political theory are Georges Bastide's study of the political dimensions of value and Sebastian De Grazia's analysis of "anomie"—value chaos integration and disintegration—in society and institutions.[99] David Easton pleads for an exact political science based on the theory of values, and Jacques Maritain and Fernández del Valle Basave have written value-diffused studies of human beings and the state.[100] Felice Battaglia, Luis Recaséns Siches, Pitrim Sorokin, and others have produced profound sociological studies of values.[101] The axiological position of economic theory is discussed by by Walter A. Weiskopf who offers a

psycho-ethical analysis, and by Gunnar Myrdall who gives a politico-ethical analysis of economic theories.[102] Some theorists have written relevant methodological studies, and others discuss the distinction between economic and moral judgment.[103] Value studies in anthropology are found in the writings of David Bidney and especially of Dorothy Lee,[104] who sees cultures as value patterns expressed in their linguistic and other cultural forms, and who makes anthropological data relevant to axiological insight, and *vice versa*.

Of the many directions in which phenomenological axiology can be developed I shall only mention those most important for ethics which develop the anthropological and the existential directions, such as Marcel Reding's.[105] Marcel Reding's axiology is based on the nature of the moral agent, the human person seen as an existential, functional, and ontological structure. Moral value is the fulfillment of human nature in cognition, volition, and love, and in the realization of the dianoetic, ethical, and love-values, all of which rest on the value of Being, the ontological foundation of moral value. The central position of humankind in the value cosmos strengthens the weak point of Nicolai Hartmann's axiology, the lack of connection between the abstract realm of values and the actuality of value realization, but it invalidates much of Hartmann's imaginative structure. The scope of the value realm, for Reding, is the scope of our human value sensitivity and activity. Axiology, therefore, is essentially philosophical anthropology. It is not phenomenology in so far as phenomenology assumes the dominion of value to be determined once and for all. It is, rather, a categorical structure, the categories being those of human value apprehension: distance and proximity, objectivity and subjectivity, transobjectivity and transsubjectivity, determination by feeling or by reason, and material or human realization of values in things or in humans. Although values can become human goals, they are not merely such goals, but are objective matters of human action, corresponding to human nature, and subjectively to be confirmed by human decision. Since they correspond to human nature, their understanding presupposes that of human nature. Human beings are structured totalities, consisting of many levels. Here is the influence of Nicolai Hartmann's ontology—with spirit as the highest level, the locus of human freedom, and a transcendence both horizontal and vertical, in the direction of our fellowman and of God. The concrete totality of all these relations—of human beings to ourselves, to our fellow human beings, and to God—is a concrete situation; it is the locus of value.

A speculative ethics of axiological essences *à la* Nicolai Hartmann, therefore, is a construction that misses the core of value reality. Each situation has its own inherent valuational content, its value matter (*Wertmaterie*). This content must be appropriated in three ways: cognitively (dianoetically), actively (ethically), and compassionately by loving inclusion of other human beings and God (agapetically). These three kinds of value belong insolubly together with love, highest in the hierarchy of moral value, and God, the highest object of love; the dianoetic values in second place, and free intellectual occupation with the divine as the second highest value; and ethical value in third place, as control of life through reason. Those who

regulate their lives in conformance with their love of God and their insight into the divine realize the third highest value. These values are efficient because they are inherent in human persons. There is no absolute Ought or similar construction, yet, the various classes of value and the height of their rank are not indifferent to one another but are "implicatively" connected. This connection is that contained in the concept "human being." This analytic concept rules this kind of axiology, and the axiology is the implicative elaboration of this concept. Another view of humankind, for example, the materialistic, would lead to a different axiology, but on the same basis and with the same justfication. Only a formal definition of human nature can break the connecting circles of such axiologies. So far the competing schools do not realize their similarity, indeed, their identity of method, and that the bitterness of their polemics is due to their being brothers.

A good example of such a fratricidal axiology is that of Eliseo Vivas.[106] His conclusions are the result of a polemic against naturalism rather than a development of anthropological phenomenology. Values, for Vivas, have objective existence. Value judgments refer to a quality of an object and not to subjective qualities such as satisfaction, fulfillment, or pleasure, which are themselves endowed with value. Confusing the value of an experience with the value of an object experienced is a form of the subjectivistic fallacy. We human beings participate in the value realm like any other object, but unlike an object, we not only have but are values, and indeed supreme values. A moral person is a system of values; a decision is a moral decision if it sustains the constitutive values the person has adopted as her or his own. The ground of moral authority is not in the will or desire of the person but in the objective values he or she has adopted. Among these values is one which, when held as supreme, turns the moral person into the ethical person: the value of other persons. This value has an onto-axiological status all its own: the worth of persons is independent of the worth or order of rank of the values they have adopted and that constitute them. Here, too, *agape* crowns the axiological structure, and the Gospel becomes the final vindication of philosophy.

From a methodological point of view, the Gospel ought to be a subject matter of value theory rather than value theory being a subject matter of the Gospel. Value theory ought to indicate the Gospel rather than the Gospel indicating value theory. Such rational human vindication may well be the only way of making the Gospel efficient. The vindication of axiology by the *Bible*, then, compares to the Aristotelian explanation of logic by natural process rather than to the explanation of natural process by logic. Axiologies that culminate in religion, then, are in danger of becoming sermons and failing in their mission to make religion an axiological method. Although such axiologies are often beautiful to read, they turn out to become subject matters of axiology rather than axiology—valuations rather than theories of it.

Intellectually more exacting than anthropological phenomenologists—who can take cover under the infinite implicative content of the concept "human being"—are those philosophers who turn axiological phenomenology in the existential direction,

perhaps because the concept "existence" is bare of content and forces the thinker to original construction.

Daniel Christoff,[107] in a most acute discussion, uncovers the temporal-extra-temporal aspect of the fundamental axiological relation. The factual properties of the thing are in space and time, while the value properties are not. Hence, this distinction must appear in the epistemological relation between actual recognition of a value and the value's own phenomenological status. When I recognize an ideal as an embodiment of the Idea of Goodness, I recognize a value whose signification lies outside of time. The act of recognition is a temporal act, but what is recognized in it cannot be described in temporal terms. An ideal recognized and accepted helps me in my task of transforming reality; yet, in holding fast to something whose significance is "beyond" time and that is not subject to temporal conditions, my existence in time—as described, for instance, by Heidegger—is cut in two: the recognition of an extratemporal value stops the continuous flow of time and elevates us above the sphere of mere becoming into that of "being." This goes for any act of valuation, whether aesthetic, ethical, or epistemological. The creation of a work of art is a temporal act, but the ideas of Beauty and Harmony symbolized in it cannot be understood in temporal terms. The same is true of a theoretical judgment. Arriving at a judgment is an event in time, but the meaning of the judgment is not the product of a temporal act; it stands in its own right, having a signification independent of events in time.

Christoff, accordingly, does not believe that in acknowledging values we behave in a merely passive manner, as might be suggested by some representatives of the phenomenological school. Judging aright, adopting an ideal, and seeing beauty in this, are acts of creation. Christoff, like Reding, and for similar reasons (the spontaneity of human freedom) goes beyond the presuppositions of phenomenology and its reduction of philosophy to apprehension of mere essences and their interrelations. In pointing to the independence of the "realm of meaning" from the temporal acts by which these meanings are made conscious, he leaves behind the existentialist position of thinkers such as Jean-Paul Sartre and Gabriel Marcel.

For formal axiology the distinction made poses a most profound problem: that of finding a formal pattern which corresponds both to the temporal order and to the extratemporal order. If the temporal order is regarded as that of succession, in the sense of G. W. von Leibniz, and mirrored, in the sense of Immanuel Kant, in the series of natural (or rational) numbers, these numbers would represent the temporal order. The extratemporal order, then, would be represented by a series that appears as a cut in the series of natural numbers, just as a value decision, according to Christoff, appears as a cut in the series of temporal events. The series which appears as such a cut in the series of rational numbers is that of the real (non-algebraic irrational) numbers; the formal pattern corresponding to Christoff's distinction is then that between the various powers of transfinite cardinals. Here we see how acute analytic patterns can bring out isomorphisms with synthetic constructions that appear in formal axiologies.

The phenomenon of *choice*, which in naturalistic axiology leads to the finite mathematical patterns of game theory, leads in phenomenological axiology to patterns of transfinite mathematics. Whereas in the naturalistic view the fundamental axiological question is begged—*why* is choice a value and indeed the value phenomenon?—in the phenomenological view freedom appears, if not as *the* at least as *a* fundamental value phenomenon by the definition of value itself which, whatever else it may be, certainly is not fact—and fact is spatio-temporal. If spatio-temporal determinations are natural properties in the sense of G. E. Moore, then value properties are not spatio-temporal. Value properties, *depend only* on spatio-temporal properties (according to Moore's second proposition true of value); and this relation, rather than the difference between temporality and value, is the profound problem to which Christoff addresses himself.

The *distinction* between the finite and the infinite in connection with axiological choice appears prominently in the value philosophy of Gabriel Philippe Widmer.[108] Values are not produced by our consciousness but are independent of it. They cannot be wholly transcendent, but they are subject to our conscious choice. We must decide among values. In order to do that, it will not be enough for us to choose among a given finite number of them; rather, our souls must be open to the infinite and its unlimited possibilities. Values are, therefore, something like a go-between (an "*entre-deux*") between human consciousness and God. They have their foundation beyond human consciousness, but they cannot become actual without it. Consciousness reflects on the ways and means by which values can be realized in time.

Like Andre Lalande, who distinguishes between "*la raison constituante*" and "*la raison constitutée*" in his attempt to explain the possibility of knowledge, Widmer distinguishes between "*la valeur constituante*," the basis and structure of value beyond our consciousness, and "*la valeur constituée*," the process of realization of value within and through our consciousness. This is the distinction that F. J. von Rintelen calls *Wert-Idee* and *Real-Wert*, Nicolai Hartmann the ideal and the positive Ought-to-Be, and formal axiology the theoretical pattern and its application.

Phenomenological axiology, in its more detailed elaborations, leads to descriptions of the value realm that give its structure in large outlines, as do maps of an unexplored continent. Ontological axiologies help to fill in certain features, and even the guesses of naturalistic axiologies give hints at the contents of the continent. Needed then is a detailed cartographic surveying; this cannot be undertaken by material axiologies, either naturalistic or non-naturalistic, but only by formal axlologies whose first concern is sharpening and creating geometric, geodetic, hypsometric, topographic instruments for the job.

2. Non-Naturalistic Formalists

Our spectrum of value theories has brought out similarities in value thought throughout the world which, if taken seriously, suggest an underlying value logic, as is held by A. C. Ewing, F. J. von Rintelen, and others. The acute ontological and phenome-

nological investigations of thinkers like Hermann Krings and Daniel Christoff suggest sharp and profound intellectual differentiations of the value realm, which should mirror distinctions in a formal pattern as precise as mathematics.

Non-naturalistic Formalists try to develop such a pattern. They accept all five of my original propositions about values (page 15 above) and believe it possible to devise a formal axiological system that may be applied to value reality as mathematics is applied to natural reality. Not all thinkers of this kind have this vision in dual clarity, but in all of them it is, if not explicit, at least implied. The same is the case with some thinkers discussed earlier, such as H. P. Rickman and his ingenious solution of the emotive-descriptive dichotomy as arising from the logical distinction between theory and application, von Rintelen and his distinction between *Real-Wert* and *Wert-Idee*, Herbert Feigl and William Kneale in projecting an objective system of axiology, and others who might agree with Ch. Perleman that since value disagreements are in the form of argumentations, a general theory of value presupposes a general theory of argumentation and a "logic of value judgments."[109]

A consistent logic of value is the more necessary as without exception all the theories discussed so far lack a general principle of structuring the value realm—if, indeed, they recognize such a realm at all. How to bring about this logic of value is a more formidable problem because value terms are not only "polyguous," to use Paul Edwards's word, but *any* term, as Maria Ossowska[110] makes clear, can under certain conditions become a value term. To say that poppy is red is stating a fact; to say to a lady that her nose is red is stating a value. Thus, no matter whether we define value by characteristic terms or by emotive impact, difficulties stand in the way that must be cleared away before a consistent theory is attempted.

Yehoshua Bar-Hillel,[111] in a discussion that might be used to solve Maria Ossowska's dilemma, tries to give a logical foundation to the contextual or "performatory" school. Similar to Ingemar Hedenius and J. L. Austin (see Chapter Five), he suggests distinguishing, in the comprehensive group of indicative sentences, between indicative sentences that are context-independent and those which are context-dependent. Indicative sentences that are context-independent are those in which knowledge of the context is not necessary for understanding the information presented, while in context-dependent sentences knowledge of the context, in its entirety or in part, is essential for this purpose. An example of the first type is, "All ravens are black," and of the second, "I am hungry." Bar-Hillel shows that with regard to context-independent sentences, which he calls statements, one may speak of the truth and extension of the sentence without concern for the different contexts in which it appears or is likely to appear. Sentences in natural science are generally expressed by means of statements of this sort. In the case of context-dependent sentences, the truth or extension of the sentence depends on its context, which can be different in every occurrence of the same sentence. All ethical sentences, he believes, if not all value judgments, are context-dependent. Both Aristotelean and modern logic, he believes, have closed their eyes to this distinction.

This may not be quite true. Singular concepts seem to be context-dependent, and insofar as logic has dealt with them it may be said to have dealt with context-dependence. But the categories of context-dependence and -independence seem to lack logical importance as long as they are not logically structured as formally synthetic rather than materially analytic concepts. Most attempts at structuring context-dependence so far have been of the materially analytic kind, for example, Nowell-Smith's (see Chapter Five).

The solution of finding formal isomorphisms for context-dependence has so far been attempted with reference to the law. The question is whether the law is a genuine synthetic pattern; the investigations of Eduardo García Máynez and others have shown that it is not, but depends itself on formal deductions. John W. Davis and I have shown that singular concepts have a formal pattern.[112] Georges Kalinowski[113] tries to show that normative statements follow a logic analogous to that of the modal propositions of Aristotle. G. H. von Wright[114] developed a detailed model logic, including "deontic modality,"[115] and García Máynez's investigations in the formal ontology and logic of legal norms[116] have, according to Norberto Bobbio,[117] fundamental importance for any normative discipline.

There is no dearth of programs for formal axiologies. Deontic logics are not formal in the synthetic sense, but only "fonnal" in the analytic sense. But there are prospects for truly formal axiologies. They fall into two groups, the first based on the logic of the term "better," the second on that of the term "good." Both groups make use, implicitly or explicitly, of the notion of the *fullness of logical being* and thus are direct developments of what I called *axiologia perennis*. The first group uses the notion more negatively, the second more positively. The first takes as axiomatic the relative *emptiness*, the second the relative *fullness*, of logical beings. The axiomatic of the second group is more comprehensive than that of the first and includes it; it defines the fundamental relation that the first group leaves undefined.

That a formal relation of betterness may underlie all value judgments was long ago seen by A. P. Brogan[118] and is suggested by the various theories making use of this relation such as Lamont's, Glansdorff's, and Davidson's *et al.*, discussed earlier. E. T. Mitchell[119] develops Brogan's suggestions into a full-fledged system of ethics, that is, an ethics based on a strict sociological framework. The theory begins with "better" as an undefined term and defines "good" as "that whose existence is better than its non-existence." With this definition, says Mitchell, we have a frame of reference of far-reaching importance that transforms value theory into a science. For, as with every theory, value theory becomes a science when it assumes the form of a coherent logical structure that arranges its fundamental concept and accounts for its phenomena consistently. Let *A, B, C* ... symbolize objects between which there exists the relation of "better than" or "worse than." These objects are "values." We then have as Primitive Term: better than, and as Definitions:

> *A is worse than B = B is better than A.* This defines "worse" as the converse of the relation "better."

> *A is equal (in value) to B = A is not better than B, and A is not worse than B.*
> *A is good = The existence of A is better than the non-existence of A.*
> *A is bad = The existence of A is worse than the non-existence of A,*
> or *The non-existence of A is better than the existence of A.*
> Postulate: *If A is better than B and B is better than C then A is better than C.*
> This postulate states the transitive nature of the relation "better than" and is the basis of the serial character of value and hence of the notion of a scale of values.[120]

Similar to the scale of good things is a scale of bad things. If the non-existence of *M* is better than its existence, then *M* is bad. If *N* is worse than *M*, and *O* is worse than *N*, and *P* worse than *O*, and so on, then these items are arranged in a scale of worseness. The dividing line between good and bad consists of those things that are indifferent. Thus we have a scale of values arranged in serial order above and below the Zero point of indifference.

"Ought" and "duty" are defined in terms of "possible." "*X ought to exist = X is possible and X good....X is a duty = X is possible and X is the best alternative*,"[121] but "alternative" is not defined strictly in terms of the system. Another possible definition would have been "*A* ought to be like *B*" = "*B* is better than *A*" and "*A* ought not to be like *B*" = "*A* is worse than *B*." In other words, "ought" could be defined, in terms of "better." If *A* is worse than *B*, then *A* ought to be like *B*, but *B* ought not to be like *A*. "Like" could be defined as "having the same class properties as."

The serial nature of value leads Mitchell to the question of the highest good and the notion of a class of transfinite values. The fact that empirically known values can be arranged in a series ordered by the relation of "better" and "worse" does not exclude the possibility that there are infinite values conceivable by reason, lying over and above finite relational values, and not belonging to the series. "The Good" of Plato and the other eternal forms as conceived by Plato would be examples of such transfinite goods, as would be the Absolute of Spinoza, the Eternal Consciousness of T. H. Green, and similar "supreme goods." All of these can be conceived of as infinite in the strict sense of being transfinite. Just as the scientist uses the isomorphism of a set of phenomena with a set of mathematical constructs in order to understand the phenomena, so Mitchell uses a set of mathematical constructs, that of transfinite numbers, to understand a set of value phenomena, "supreme goods." If, he says, the value scale has no highest member, at least there is the class of all goods, and this class constitutes the Good.

On the same analogy, other transfinite values like Truth and Beauty might be conceived of as forming a realm of transfinite values, in exact analogy to the series of natural numbers, which have no upper limit but, as a class, form a transfinite number. The series of natural numbers is formed such that, beginning with zero, each successive number arises by adding one to the predecessor. Since the series has no upper limit, the class of all the natural numbers is an infinite or transfinite number. Similarly, values form a series, and series of series, and the totality of them form

transfinite values. This isomorphism between value and number makes the notion of transfinite value lose its irrationality and develops it by strictly logical means. It puts meaning and precision into such non-sequiturs as: "the better implies a best," "progressive betterment implies an ultimate goal of perfection," "progress is meaningless without a final goal," and the like. "Better" and "worse" do not imply an absolute good and an absolute evil any more than "earlier" and "later" imply an absolute first beginning and an absolute last end to the time series. But Mitchell does not develop the isomorphism between the time series and the finite-transfinite nature of value in any detail. Had he done so he would have arrived at some of the distinctions made by Daniel Christoff, as mentioned in Chapter Two.

Although Mitchell has not worked out the theory in systematic detail he is able to apply it suggestively to the practice of moral life. He uses for this A. P. Brogan's "Analysis of the Moral Method,"[122] which consists essentially of three stages: (1) the survey of alternatives, (2) the analysis of alternatives, and (3) the choice of the better alternative. A moral problem always is a situation presenting alternative choices. "Choice" is the practical term of which "betterness" is the formal meaning. Mitchell compares Brogan's method to Dewey's analysis of the complete act of thought and its five steps, and to Plato's perfectionist method and its two steps—delineation of the best and consideration of how in fact the ideal can be attained. Since his theory is not developed in synthetic detail—the reason being the undefined nature of the fundamental relation "better than"—the application of the theory cannot have the necessary nature of *method* that a fully developed formal theory would have. Mitchell's thus is a formal theory *in ova.* It follows with full methodological clarity the axiomatic course of an efficient axiological theory, and it thus arrives at insights beyond any other theory discussed so far, but its axiom is not rich and flexible enough to span the whole reach that a complete axiology must cover.

The same relative advantages and shortcomings appear in other theories based on Brogan's relation of "better than." For H. Timur,[123] whose melioristic axiology is much less formal than Mitchell's, the fundamental fact of objective value is that we can arrange all things of experience in a scale of excellence. Any experience is regarded by us as either better or worse, higher or lower, than some other. The error we commit when investigating the nature of objective value is that we try to go beyond this fundamental fact. We either look for a common ethical quality, as we look for a common physical quality in a class of physical objects, or we idealize a common desire. However, the idea of one thing's being superior to another cannot be analyzed any further; it is one of our ultimate modes of thought. Just as we are unable to discern goodness as a unique quality in value situations, we are unable to discern evilness, which then also must be a unique quality. Yet, on the basis of betterness we may define the common terms "good" and "evil," "value" and "disvalue." "Good," though positive in form, is comparative in meaning. The only difference between "good" and "better" is that in "good" the idea of relative excellence is implicit and in "better" it is explicit. The essential nature of goodness or value is the fact that a thing occupies a place in the upper part of the scale of excellence;

the essential nature of evil or disvalue is the fact that a thing occupies a place in the lower part. Good is one pole of the scale of excellence and evil the other. Good and evil, therefore have some of the characteristics of contradictory terms. The same aspect of the same thing cannot at the same time be good and evil. Also, if a thing is not bad, it is in some degree good, and *vice versa*. Betterness is the common concept underlying both good and evil.

Since the relations between these terms are not determined by Timur with anything like Mitchell's or even Brogan's precision, these concepts cannot be applied with precision to moral reality; thus, Timur's perceptive valuational judgments do not profit to any large degree from his conceptual framework. The concepts of superiority-inferiority that pervade "every scale of value from top to bottom"[124] are analytic material concepts; the scales therefore are metaphorical rather than real scales, as they could be if superiority-inferiority were formal synthetic concepts. Even though Timur says important and suggestive things about the value scale, as when he takes Brogan to task for disregarding the gap between "better" and "worse"; the smallest good is infinitely removed from the smallest evil, the enjoyment of the smallest pleasure infinitely removed from the suffering of the smallest pain. So I feel that there is more to the scale than even Timur says: a precision is possible of which his description is only an intimation—just as Plato felt that there must be precise numerical units to logical division, and that these measures would be of fundamental importance for the notion of value.[125] The axiological quest must not rest until precise logical relations have been found to determine the betterness of one thing over another, until betterness, or goodness, has been defined synthetically.

Other theorists have attempted to define betterness on the basis of goodness. Felix S. Cohen defines "better than" by reference to an undefined notion of "good."[126]

> 1. *A is better than B* means *There is an event, C, such that the logical conjunction of C and A is good, while the conjunction of C and B is not good.*

The third event, *C*, acts, so to speak, as a standard for judging the relative merit of *A* and *B*.

> For example, keeping a hundred children from spinal meningitis (*A*) is better than keeping a thousand dogs from vivisection (*B*) if, and only if, there is some third event, say sickness of fifty children (*C*), which taken with the preserved health of the hundred children (*A.C*) constitutes a series of events that is on the whole good, but taken with the rescue of the thousand dogs (*B.C*) does not form a good whole. Or, to take an example where it may be easier to focus attention on intrinsic values, the enjoyment of Beethoven's Seventh Symphony on a given evening of the reader's life (*A*) is better than the conversation of a friend (*B*), if there is some third event (*C*) such as the waste of an hour in traveling which, taken with the concert (*A.C*), is good, with the conversation (*B.C*), not good.[127]

In all, there are five cases in which definition can be applied:

(A) *A* is good and *B* is bad. In this case we can always conceive an indifferent event, the conjunction of which with *A* would produce a good, though its conjunction with *B* would not produce a good.

(B) *A* is good and *B* is good. In this case, if *A* is better than *B*, there will be some bad event which will in conjunction with *B* constitute a total that is not good (that is, either bad or indifferent), although it is not bad enough to make the conjunction *A.C* not good.

(C) *A* is bad and *B* is bad. In this case, if *A* is better than *B*, there will be a good event, *C*, sufficient to make *A.C* good, yet not adequate to make *B.C* good.

(D) *A* is good and *B* is indifferent. Here we may add a third independent event either indifferent or slightly evil, so that *A.C* will remain good, while *B.C* is indifferent or bad.

(E) *A* is indifferent and *B* is bad. Here a third event may conceived good enough to make *A.C* good, while *B.C* remains bad or moves up to the level of indifference.

To understand these five applications we need the definition of "worse," "indifferent," and "bad."

> 2. *A is worse than B = B is better than A.*
>
> 3. *A is indifferent = If any event is good, the conjunction of that event with A is good and, vice versa, if the conjunction of any event with A is good then the event is good.*
>
> 4. *A is bad = Every indifferent event is better than A.*

To these definitions Cohen adds the definition of "best" and "worst" in a given class:

> 5. *A is best in a given class = A is a member of the class and is better than any other member of the class.*
>
> 6. *A is worst in a given class = A is a member of the class and any other member of the class is better than A.*

As long as the fundamental term of this structure, "good," is undefined, the structure is not formal but empty. If I do not know what "good" means, and the formal definition has no material content, the formal system is materially empty; it is no true *synthetic* system. Although it has systematic import it lacks empirical import. Its axiom is not based on *phenomenal* insight into the subject. The empty formalism of the system appears in Cohen's own comparison of his six axiological definitions with six corresponding definitions in mathematics. If "good" corresponds to "positive number," "*A*," "*B*," "*C*," mean numbers, and "*A.B*" the algebraic sum of *A* and *B*; the corresponding algebraic definitions are: 1. *A* is greater than *B*; 2. *A* is less than *B*; 3. *A* is zero; 4. *A* is a negative number; 5. *A* is the greatest number in class *K*; and 6. *A* is the least number in class *K*.[128]

As is seen, Cohen's definitions of value relations are patterned after those of number relations. But, and this brings out the fundamental difference between the two sets of definitions, whereas the basis of the number relations, the concept "positive number," is exactly defined and forms the *axiom* of the mathematical system, the basis of the value relation, the concept "good," is undefined and cannot form an *axiom* in the axiological system. The comparison does bring out the fundamental similarity of the two systems: their structures are similar; an isomorphism exists between the series of number and that of value relations. In this purely formal sense, we are a step closer to a science of value. If the fundamental notion "good" were defined we would have a powerful axiological instrument, for we could use the properties of number for the understanding of value, the structure could have both systematic and empirical import, and the problem of a value science would be solved. As it is, Cohen gives us (and this is an important service) some of the formal characteristics of such a science.

1. The system as such does not presuppose either good or evil things, as little as the system of mathematics presupposes a world to be numbered. But *if* there are good or evil things, then the formulae of the system are applicable.

2. The language of the system is not common sense language but a technical language. What is called "better" in the system is different from what we think of as "better" in everyday affairs. Yet, the technical nature of "better" is the one that contains the *meaning* of the simpler everyday concepts.[129]

Although these actually are some of the properties of a science of value—as of any science—they are, up to this point, not properties of Cohen's own proposal. His system is not applicable to value reality, for goodness in the system is not defined. Hence, what his system calls "good" may be applied to what actually may be either good or bad. Herein, precisely, lies the lack of empirical import of the system. Secondly, connected with this, the technical definition for "better" does not really express the meaning of the everyday concept, again because it is based on no axiom of phenomenal relevance. According to Cohen's definition, if there is an event *C* such that the logical conjunction of *C* and *A* is good, while the conjunction of *C* and *B* is not good, then *A* is better than *B*. Thus, if drinking coffee with whipped cream is good and drinking coffee with TNT is bad, then whipped cream is better than TNT. This, of course, is nonsense. Whipped cream is better for coffee and TNT better for dynamiting rocks. The two are *incomparable*. Any definition of "better" must include the standard by which the things in question are to be compared, but *C* does not supply it.

Formal axiology supplies it in the axiom derived from Moore's two different propositions that are both true of good: the standard is the intension of the thing's concept. A thing is good if it has its intensional properties and bad if it does not have them. Thus, of two things, one good because it fulfills its concept, say, a good automobile, and one bad because it does not fulfill it, say a bad automobile, the first is *better* than the second. The degree of possessing intensional properties determines the goodness and badness and hence the *betterness* of things. Their standard of

comparison is their common concept. Unless things are in the same class they cannot be compared. We can, at best, say that of a good automobile and a bad suspender, the first is better as an automobile than the second as a suspender, or that the first is a better automobile than the second is a suspender. But we cannot say that one is simply "better" than the other. "Better" is no primitive value relation that can be understood without qualification. Cohen is right in founding it upon "good," even though such a foundation is empty as long as "good" is left undefined.

The *synthetic axiom* of formal axiology defines good in a materially relevant way. It is not merely *formal* but also *material*; this is what "synthetic" and "axiom" mean; it supplies the empirical import that is missing in Cohen. Yet, Cohen's extremely acute and systematic analysis proceeds to discuss the *definition* of "good," and in the process even considers the kind of definition I propose, only that this kind appears to him "something of a mystery."[130]

The "logical nature of goodness," he holds, is determined by the following three possibilities: the expression "*A* is intrinsically good," (1) has no meaning, (2) has a constant meaning, (3) has a variable meaning. In the first view, the expression is neither a proposition nor a propositional function, but a meaningless assembly of words. This is the position of value nihilism, "a theory of ethics only in the sense that anarchism is a theory of politics or scepticism a theory of knowledge."[131] It is the position of some of the more radical positivists, and Cohen rejects it. The second view is that of ethical absolutism. In this view "*A* is intrinsically good" is a proposition that is either true or false. It means that "*A* is intrinsically good" always has the same meaning, whatever this may be in one ethical theory or another. "Absolutism in this sense is the assumption of practically every ethical system that has been constructed."[132] Cohen neither accepts nor rejects this view, but he makes a significant mistake in explaining it. He believes that G. E. Moore is an absolutist because he regards good as a simple indefinable quality. Actually, what for Cohen is ethical absolutism for Moore is the naturalistic fallacy. The indefinability of Moore's "good" keeps "good" open for any kind of determination, as Moore himself makes clear;[133] and this makes Moore a representative of ethical relativism in Cohen's third sense.

In this third sense, the expression "*A* is intrinsically good" is not a proposition but a propositional function.[134] "Good" here is a *variable* that assumes values by interpretation, just as does "*x*" in a mathematical expression. If "good" is undefined, as it is in Moore, it is of course, an unknown *x*, or better, *y*, and the expression "*A* is good" is not a proposition but a propositional function. The naturalistic fallacy is for Moore precisely the *substitution of a value* for *y*, be it "pleasant," "self realizing," "following the will of God," or what not. If Cohen had seen this *methodological*, rather than material, meaning of Moore's doctrine, he would have come very close to my position. Moore stated the *variable* nature of "good." He failed to state the *range* of this variable—the range of substitutions that would make the propositional function a proposition and hence subject to truth or falsehood. Moore failed, in other words, to *solve* the problem of moral science; he only *posed* it; and this, his historical achievement, has never been clearly understood. Cohen calls the position in question

that of ethical relativism and believes Moore to be against it. But the ethical relativism Moore is against is not what the expression "*A* is intrinsically good" as a propositional function means. For, the run-of-the-mill ethical relativism only means that "good" can have many meanings, but not that "good" itself has the *logical meaning of having many meanings*, that is, that it is a variable in the logical sense. To construct relativism in this way is a contribution of Cohen that goes beyond the ordinary meaning of "ethical relativism" and adds to it its logical structure. But even Cohen himself was not clear about the nature of this logical addition. He built better than he knew. Cohen neither accepts nor rejects this position, but he recognizes its serious shortcoming, that of not determining the range of the variable "good."

Cohen's next step is to ask whether and how "good" can be *defined*, either in the proposition or the propositional function "*A* is intrinsically good," either as a constant or a variable, either as a term of ethical absolutism or relativism. In both cases (the third case, ethical nihilism, having been rejected), there are two possibilities: either the expression "*A* is intrinsically good" has or has no naturalistic meaning. The four possibilities of defining "good" then are:

(1) The expression "*A* is intrinsically good" is identical with a natural proposition.

(2) It is not identical with any natural proposition.

(3) It is identical with a natural propositional function.

(4) It is not identical with a natural propositional function.

The first possibility, that "*A* is intrinsically good" may mean, say, "*A* is pleasant," is, according to Moore, a fallacy; but Cohen does not accept Moore's argument. It may well be, he says, that "good" is convenient mental short-hand for some natural term or complex of terms. "No persuasive reason has been produced to show that every attempt to define *good* analytically must be doomed to failure."[135] The only proof Moore could attempt for this position would be to show that every possible analysis of *good* is incorrect, and this he did not attempt to do. Thus, "We can only examine in detail the types of natural definition that can be advanced and endeavor to consider in each case whether the suggested *definiens* really means what *good* means."[136]

Again, Cohen misunderstands the methodological nature of Moore's fallacy: to define "good" by any definite property is false because "good" is not a constant but a variable; the expression "*A* is intrinsically good" is not, if we understand Moore correctly, a proposition but a propositional function. Yet, Cohen believes, it may be a proposition and it may be a natural one, so good may well have one naturalistic (or metaphysical) meaning. He thus accepts the first definitional possibility of "good."

The second such possibility is the one Cohen identifies with Moore's position. Good is some definite property, but it is not a naturalistic (or metaphysical) one. This position, says Cohen, presupposes an absolute dualism between the realm of nature and that of value. Although Cohen does not deny this possibility, he does not wish to accept it. Again, he misunderstands the "simplicity" and "indefinability" of the Moorean property "good." It is analytically indefinable and simple, but not syntheti-

cally so. Although it is not a natural property it is yet a property such as number[137] and hence may be defined as such. But number is a variable, and expressions such as 2 + 2 = 4 consist of variables in so far as the class of couples and the class of quadruples may consist of sets that consist of any kind of individuals whatever. This was made clear by Bertrand Russell in the very year that *Principia Ethica* appeared, 1903. In that year, the solution of Moore's paradoxes of goodness appeared implicitly in Russell's *Principles of Mathematics*. Yet, the relevance of the one book for the other has never been recognized, in spite of Moore's own hint at the mathematical analogy. Since number is the class of classes similar to a given class, the range of values that the variable "number" can take are classes similar to a given class, or sets in one-to-one correspondence to a given set. Similarly, since axiological value is the class of classes-of-properties (intensional sets) similar to a given class of properties (intensional set), the logical value the variable "axiological value" can take are intensional sets similar to a given intensional set. "*A* is good," thus, is not a proposition but a propositional function.

This means that the definitional possibility in question must be either (3) or (4). According to the third possibility, "*A* is intrinsically good" is identical with some *natural* propositional function; "good" would have to be interpreted as a set of natural properties. This, according to Cohen, would be the case if the expression were defined by some expression such as "I approve of *A*." In this case, the expression "is neither true nor false *in value*, but becomes true in some cases and false in others as the *I* is given a definite reference."[138] "I" in other words, is itself a variable. The approval depends on the ethical standard that the individual chooses. Depending on the standard chosen, "good" will vary and hence the goodness of *A*. Cohen inclines to accept this view and to examine definitions of this kind piecemeal in the light of our experience.

Actually, we have here a logical determination of all possible naturalistic standards of value. Such standards may be determined not only by individuals but also by societies, situations, contexts, and the like. We have here a logical determination of the various forms of contextualism. If *good* is what is regarded as approved in a context, then forms such as "I," "you," and others which are "context-dependent," appear as values of the naturalistic propositional function "*A* is intrinsically good" or "*A* is good." But again, the range of this variable is not determined—except as "naturalistic"—and the propositional function has no meaning beyond that, that is, beyond saying that ethical standards are those chosen by individuals, societies, contexts, and so on.

We are left, then, with the last definitional possibility, that "*A* is intrinsically good" is a propositional function but not identical with any naturalistic one. In other words, "good" is a variable but its range of values does not consist of natural terms. This possibility seems to Cohen improbable because incomprehensible. What could be these non-naturalistic terms? It would mean that

> although in different references or connotations the value judgment means different things, what is common to these judgments is not something which can be expressed in terms of psychology or any other positive science. There are no conceivable arguments for such a position, since the arguments for relativism are all based upon the ground that *good* is definable in natural terms, while the arguments for the indefinability of *good* are all based upon the belief that goodness is a constant quality which natural terms are unable to approximate. What sort of indefinable constant element could produce relative value judgments through dependence upon a variable is something of a mystery. We may conclude that this fourth alternative theory of the nature of the value predicate is, on the whole, an improbable one.[139]

Here we have a good statement of the dilemma of ethics. What relativism (or naturalism) has proposed is definable but not good; what absolutism (or non-naturalism) has proposed as good is not definable. How can the indefinable propose something that is natural (and relative)? The solution is, of course, that the "indefinable" refers to a universe of naturalistic (relative) events. The "mystery" is solved, as are Moore's paradoxes, by the formal definition of good in terms of a logical relation—that of fulfillment of conceptual intension, by analogy to the formal definition of number in terms of a logical relation, that of the correspondence of classes. The range of the variable "good," in other words, is the non-naturalistic range of logical intensions—and it is natural in that these intensions consist of natural properties. "Good" is a variable and hence indefinable as a constant; it is non-natural. Yet, on a different level, the level below the non-natural, it is natural. This is the solution not only of the range of the variable "good" but also of Moore's paradoxes and the axiological suggestion of "polyguity," "homonymity," and such. It is, in a word, the determination of the fundamental axiological relation.

Thus we have come full circle. With Cohen the problem of the definition of good has approached very closely to my own solution. Only those axiological thinkers remain who have directly related the fullness of logical intension to the nature of goodness; then my program of showing the transition from moral philosophy to moral science is completed.

There are really only two such thinkers, Daniel Christoff and J. O. Urmson. In both the relation between logical intension and value, although it is definitely this relation, suffers characteristic distortion; and the fundamental axiological relation is seen in a peculiarly distorting mirror.

Daniel Christoff[140] uses the idea of fullness of logical being as the "foundation of a logic values" in the following acute way: every judgment of fact transcends its content and is accompanied by a value judgment since it implies the choice of the frame of reference or the order within which its truth or falsity is to be determined. I have elsewhere developed a naturalistic approach to the same idea.[141] Value, for Christoff, may be defined as that which a concept lacks in order for the judgment, of which it is the subject, to be recognized as objectively true. The structure of

judgment itself contains a representational or informative and a valuational aspect. In the proposition, "Socrates is a man," the term "man" can be used extensionally as class and intensionally as value. In the second sense, the proposition means that Socrates fulfills the meaning of "man." The informative aspect may be expressed by a general or a singular concept. In the first case, the concept, being itself an infinite possibility of judgments and of relations, is itself a relation, expressed in its definition, which delimits the concept to a certain nature of judgments. Within these limits, every concept has a double aperture, extension and intension, which represent, so to speak, the inferiority of a concept.[142] The value of the concept is the greater—its truth is the more wanting, that is, desired or desirable—as the concept lacks order, or the order in which it is to be integrated is more complex. In the second case, that of a singular concept—"this window," "this tree"—the concept is extremely uncertain if not actually undetermined, for what corresponds to it is not an order at all but one single object. Here the value of truth is at its highest because most wanting (although what the judgment affirms is reality itself, that of the object). Thus, in general, the value of a concept resides in its uncertainty or indeterminateness. As long as the concept is a general one and part of a well-defined system of other concepts, its value is almost zero; it borrows its value from the order to which it belongs. The value *of that order* is the greater as that order alone assures the truth of all the concepts that constitute it. In my terminology, a synthetic concept has almost no value, but a synthetic system has a very high value. The value of a concept is at its highest when it is a singular concept belonging to no order, or when it is a *summum genus*, belonging to the most abstract (analytic) order. The uncertainty of these matrices gives a high price to certain unique concepts and the highest ideas—among them the principle of deduction[143]—but a lesser price to concepts that can be deduced one from the other within firm matrices. Some concepts express the idea of perfection or plenitude, such as "goodness," "generosity," and "grace." With these high analytic concepts our capacity of representation does not suffice to give them content. We can only distinguish degrees of adequacy with which we can intellectually approximate the plenitudes they express. Some positivists, from the analytic point of view, would say, "We can only distinguish degrees of adequacy with which we can intellectually approach the *platitudes* they express." The insignificance of our intellectual powers causes a feeling of value born from want. Value, then, is nothing but the positive idea of a lack; it signifies a certain nothingness, a nothingness not of being but of logical determination. In short, the value of a concept resides in the lack of matrix of which it is a part and is the higher the less ordered is this matrix, for such disorder accentuates the lack. (Compare this notion of "wanting" with that of F. E. Sparshott in Chapter Five.)

This is a most curious but most ingenious view, the core of which is an ontological interpretation of what I call the logical definition of "ought,"[144] yet it leads to logical conclusions. According to it, a synthetic concept has the least value, an analytic concept has more value, and a singular concept has the highest value. This theory expresses from a negative point of departure—value is want of order—the

exact hierarchy of value that formal axiology derives from a positive point of departure—value is fullness of order.

Since synthetic concepts have, by definition, fewer intensional properties than analytic concepts, and analytic concepts fewer such properties than singular concepts, less fulfillment is possible with synthetic concepts than with analytic concepts, and less with analytic concepts than with singular concepts. Since, in formal axiology, fulfillment of a concept defines value, synthetic conceps have less value than analytic concepts, and analytic concepts less value than singular concepts. In other words, synthetic concepts have the least value, analytic concepts have more value, and singular concepts the highest value. ·

As Christoff changes the plenitude of logical being into its opposite and makes lack of such being the basis of value, so J. O. Urmson[145] changes the universality of logical being into particularity—in accordance with the Oxford School. Through this reinterpretation, he makes it the basis of valuation and suitable, among other things, to approach a solution of Ossowska's dilemma. Instead of speaking of the qualities that make up a thing, he speaks of "criteria," meaning by this the thing's qualities insofar as they are used for valuing the thing—in the terminology of other writers discussed above, the "good-making" qualities used *qua* good-making. Through this change of terminology he changes the *logical* context into the *valuative* one: instead of definitions of concepts or things he speaks of "definitions of qualities" and "standards of grading," and instead of the value property he speaks of "grading labels." "Good" for him is a "grading label applicable in many different contexts, but with different criteria for employment in each."[146] The relation between the *criteria for the goodness* and the *goodness* of the thing, the fundamental axiological relation, is for him neither analytic nor synthetic. It is not analytic for if the grading label "good" were in each case

> merely shorthand for the sum of the criteria (naturalism) we should have the absurd situation that "good" was a homonym with as many punning meanings as the situations it applied to; it would not significantly be used of a theatrical performance in the sense in which it is used of an apple.[147]

This, Urmson believes, "constitutes a most graphic refutation of naturalism." For other writers such as Paul Edwards, this very "polyguity" served as basis for their naturalism. But, Urmson continues,

> to regard the relation between 'good' and the criteria for a good apple as synthetic is equally absurd. If someone were to admit that an apple was of two inch diameter, regularly shaped, of pleasing taste, high vitamin content and pest-free, nor claimed that it lacked some other essential characteristic but none the less denied that is was a good apple, it would not merely be empirically surprising; it would involve a breakdown in communication.[148]

What, then, is the relation between good-making criteria and "good"? The criteria are different in each situation, yet the goodness or badness is objectively decidable. It is not merely a matter of subjective likings; rather, it is a matter of the *acceptance* of grading criteria. If a stable majority of people prefer, say, cheese with the characteristics *A*, *B*, *C*, then these characteristics are the ones accepted, even by the minority, for grading cheese, and cheese that has them is "good."[149]

Even moral goodness can be determined in this way. Although it seems that to call someone a good man is logically different from calling him a good cricketer, there is no need for expecting a logical difference since the moral grade is not different in kind from the social. (See R. M. Hare's argument on this subject in Chapter Five above.) It is merely the one that refers to the totality rather than to sections of our life. Social intercourse and manners are the nearest approach to morals; indeed, they form an intermediate stage between individual function and character. This assertion is denied by Karl Britton,[150] who holds that goodness in kind is *logically* different from moral goodness which, whatever it is, is not in kind.

Formal axiology makes clear what this *logical* difference is by defining both the logical nature of goodness in kind, such as social goodness, and of goodness that is not in kind, such as moral goodness. There is a definite logical difference between the goodness of a good cricketer and that of a good person, and this difference appears in Urmson's own account. For if moral goodness does refer to the totality of our life and social goodness to sections of it, then moral goodness is of a higher *logical* type than social goodness, by the principle we so often encountered, that a totality is on a higher logical level than the elements of which it consists. To see this clearly and systematically we must now turn to formal axiology.

3. The Formal Nature of Value: Axiological Science

Our survey has shown the infinite variety by which value philosophers have presented the fundamental axiological relation between fact and value, but without seeing its logical core discovered by G. E. Moore: it is a relation between descriptive and non-descriptive properties. This I supplement by the simple observation that value is the degree in which a thing fulfills its conceptual intension. It is difficult for the human mind to see the obvious, and nothing is more obvious than that the value of a thing supposed to be *C* is the degree of its being *C*. At the same time, nothing is more fundamental, for this view makes available the whole of logic as an instrument for the comprehension of valuation. It identifies two things never before explicitly combined, logical concept and axiological norm. The concept of the thing is its norm; hence, the nature of norms depends on the nature of concepts. Since the nature of concepts is well known and logically structured, so is that of norms.

This procedure is the same as all scientific procedure. Today, nothing is more obvious than that a motion of ten miles an hour means a velocity of ten miles an hour; but that the relation between the ten miles in space and the hour in time was the simple one of arithmetical division was a transcendent insight. It brought on a revo-

lution, and indeed the deepest-going revolution humankind has experienced, that from natural philosophy to natural science. This simple relation had to be lifted out of a matrix of theology, cosmology, ontology, psychology, and physiology in which it was embedded so deeply as to be all but unrecognizable—like a very fine nerve embedded in a fatty tissue to which, yet, it gives life. Time and again philosophers, such as Occam, had approached the simple truth, but it was Galileo who saw not only the simplicity of the relation but also its transcendent significance.

Similarly, I lift the simple relation between factual and value properties out of the theological, cosmological, ontological, psychological, physiological matrix in which it is embedded so deeply as to be all but unrecognizable—like the very fine nerve embedded in the fatty tissue of fact to which, yet, it gives life. My scalpel is the synthetic rather than analytic, the formal rather than material method, which revealed to us the axiological fallacies. With its help I dissected the tissue in the last three chapters of this book and am now ready to excise the nerve.

My approach has shown that Value has everything to do with value only when it has nothing to do with it. In other words, the very core of value is formal; and formal Value is as different from value (pleasure, choice, and so on) as the symbols "$E = mc^2$" are from a nuclear bomb. Yet, this formula is what makes the bomb tick, and the formula for Value—"the degree of intensional fulfillment"—is what makes all values tick. This we shall now investigate somewhat more closely.

The fundamental axiological relation appeared in many ways in value philosophy—phenomenologically, ontologically, teleologically, biologically, psychologically, sociologically, contextually, and so on; but all such appearances were more or less crude, fatty strings of tissue that concealed rather than revealed the value relation. Yet, off and on philosophers approached the nerve of the matter—which had already been exposed by G. E. Moore—with notions such as "homonymity," "polyguity," in comparisons between definition and valuation, good-making and value properties, and the like. While the relation appeared in two ways in philosophy—in Moore's paradox of the two different propositions that are both true of goodness and in the notions of polyguity and such—it also appeared in natural science in the distinction between primary and secondary properties. Secondary properties are both the natural and the value properties of things, but not the scientific. We have thus three approaches to the axiom of formal axiology—the Moorean "prolegomena" to the science of ethics (an approach, we might say, between philosophy and science), the scientific, and the philosophical. Let us first review again Moore's approach and my deduction of the value axiom from it.

Moore's paradox of "the two different propositions [that] are both true of *goodness*, namely, that: (1) it does depend *only* on the intrinsic nature of what possesses it...and (2) *though* this is so, it is yet not itself an intrinsic property"[151] is solved in the way of all paradoxes—by showing the difference of the logical orders in question. The two propositions refer to two different logical levels: the negative proposition concerning what goodness is *not* to the thing itself, and the positive proposition concerning what goodness *is* to the concept of the thing. For if "good"

is a property indicating that the intension of the thing is being fulfilled, then it is *not* a natural property of the thing itself, but it *is* a property of the concept of the thing, namely, its intension's being fulfilled by the thing. To Moore's "depends on" belongs as counterpart a "corresponds to." The value property of a thing depends on the natural properties, which, in a good thing, correspond to the properties contained in the thing's concept. This correspondence is what makes the thing good. Moore saw that the value property *depends on* the natural properties of the thing, but he did not see the condition of this dependence: the logical nature of these properties as giving rise to the value predicate, their *correspondence to* the conceptual properties of the thing. Value, as Moore rightly saw, is *not* a natural property; yet, it depends *only* on these natural properties (and this was my addition to the Moorean determination of the nature of goodness) *in so far as the natural properties correspond to the properties contained in the concept of the thing*. In other words, *the goodness of a thing depends only on the properties that define the thing's concept*. With this axiom the problems of value become problems of logic. The value predicate "good," in not being a property of the thing, but in being a property of the thing's concept, is defined in a way similar to the Frege-Russell definition of the number predicate, for example, "four."

Let us now review the scientific approach. It compares Galileo's attack on the problem of motion with an axiological attack on the problem of value. In both cases the problem is one of finding a *standard of measurement*. Galileo found the standard of measurement of motion by disregarding the secondary qualities of the phenomena and concentrating on their primary qualities, that is, quantities amenable to measurement—centimeters, grams, seconds—so that what was measured was not the sense phenomenon of ordinary life with its secondary properties but a construct consisting of primary properties. In value measurement what is to be measured is the ordinary sense object not only as possessing its secondary properties, but this very possession is what measures its value. Hence for value measurement the *secondary properties must be used as primary properties*. The question was to find the standard that is to the secondary properties as primary standards—of length, weight, and so on—are to primary properties. What contains the secondary properties as, say, the meter contains the centimeter? The answer is: *the intension of a concept*. The concept, then, serves as the standard for value measurement—the same result as the deduction from Moore.

The notion of conceptual value measurement leads to dimensions of such measurements, just as does the notion of natural measurement of primary properties. Since concepts have different complexity or "plenitude," different intensity of content, the measures which things can fulfill in order to be good (or can fail to fulfill in order to be bad) are different. Depending on whether concepts are synthetic (constructs), analytic (abstractions), or singular, the number of possible properties they can contain is respectively finite, denumerably infinite, or non-denumerably infinite. The fulfillment of these respective concepts results in, respectively, systemic, extrinsic, and intrinsic value, that is, different value dimensions. These dimensions

form a hierarchy of values that not only confirms Mitchell's isomorphism of transfinite mathematics and valuation, but also Christoff's value scale (even though it is contrary to his assumptions) and gives a mathematical interpretation to Urmson's discussion. The notion of value measurement leads to a calculus of values that applies the formal system of value with precision to value reality.

The philosophical approach, finally, leads to the same result. It demonstrates the purely formal and non-naturalistic character of the theory. "Good" is, as writers from Aristotle to Paul Edwards and J. O. Urmson have observed, an expression applicable in many different contexts with a different set of criteria for its employment in each. This, as has not been observed, happens to be the exact description of the logical nature of a *variable*. "Good" is a variable, and its logical values are actually fulfilled intensions, or axiological values. *"Good" is that variable the logical values of which are axiological values*. Its variable nature is expressed in laws of value just as the variable nature of, say, gravitation is expressed in laws of nature. These laws are applied to value phenomena just as natural laws are applied to natural phenomena. Thus, it is a law of value that if x is a member of a class C and possesses all the properties of C, then x is a good C. It is a specification (interpretation or application) of this law that the thing over there is an armchair, has all the properties of an armchair, and therefore is a good armchair. The variable "good" has an infinite range, which in scholastic axiology made it one of the transcendentals; this range is structured since the concept C can have any of the three intensional complexities—the constructive, the abstractive, and the singular; so its fulfillments may be systemic, or extrinsic, or intrinsic values.

The concept "chair" is systemically fulfilled in a chair factory, extrinsically in ordinary life, intrinsically in a still life (for example, Vincent van Gogh's *Self-Portrait of a Chair*). The concept "God" is systemically fulfilled in theology, extrinsically in comparative religion, intrinsically in mystic experience. The concept "man" is systemically fulfilled in physiology, extrinsically in sociology, intrinsically in ethics. The various specifications of the variable in various modes of the concept and in various fields of reality give rise to the various value sciences. Ethics, for example, is the application of intrinsic valuation to human beings. Morally good persons are those who fulfill their own concepts of themselves, are what they are ("genuine," "honest," "sincere"), and do not pretend or play roles. Extrinsically—sociologically—good people do play roles, as do good cricket players or streetcar conductors.

The logic of intensional complexities and rules of application give structure to von Rintelen's *Real-Wert* and *Wert-Idee* and supplement Northrop's macroscopic account of the epistemic correlation by a microscopic account of it. At the same time, the theory follows Margenau's program of using the method but not the content of science. For this reason it is non-naturalistically formal: it applies the scientific method to a subject *sui-generis*—value. The difference between fact and value is not material but formal or methodological; any event or thing seen under the frame of reference of natural science and its logic is a fact, and seen under the frame of reference of axiological science and its logic is a value.

No valuation is, as such, emotive. Rather, the theory defines the strict distinction between feeling and valuation of Nicolai Hartmann and locates, with Rickman, the emotive in the application, by defining value psychology as a specific form of valuation. Neither is valuation, as such, metaphysical or ontological. Rather, metaphysics, too, is defined as a specific kind of valuation, namely, as intrinsic valuation applied to concepts. The same is true of the "contextual" and "situational" uses and functions of value terms. These terms are formally defined in the theoretical pattern, and their concrete uses are determined by the rules of application. The imperative form is determined through the definition of "ought." Urmson's "grading labels" are the axiological quantifiers—for example, "good" as the universal positive such quantifier, expressing that the thing *does* have *all* its intensional properties. His "standards of grading" are concepts as standards of secondary properties, and his "criteria" the units of these standards, the intensional properties. In a similar way, other value characteristics given by value philosophy ought to reappear, in a consistent pattern, in value science.

In such a science, value characteristics and distinctions ought to appear that have never appeared in the philosophy of value, and such a science ought to be able to penetrate to the very core of value situations in a way no value philosophy can. Synthetic value reason ought to be both extensionally wider and intensionally deeper than analytic value reason. So far I have dealt with axiological reason extensively, examining the variety of value theories. I shall now examine axiological reason intensively, showing how it explains specific value situations, both analytically as value philosophy and synthetically as value science.

Part Three

THE VALUE OF REASON

Our whole dignity consists in thought.
Let us endeavor to think well:
this is the principle of ethics. Pascal, *Pensees*

Eight

THE AXIOLOGICAL VALUE OF REASON

He seems to believe that a philosopher need not know anything scientific beyond what was known in the time of our ancestors when they dyed them selves with woad. *It is this attitude which enables him to think that the philosopher should pay attention to the way in which uneducated people speak.*[1] Bertrand Russell

Irony: A figure of speech in which laudatory expressions are used to imply condemnation or contempt.[2] *Oxford English Dictionary*

In the third part of this book I will complement the negative and purely critical function of axiological science with a positive and constructive one. The critique of analytic axiological reason will be combined with the constructive application of synthetic axiological reason—an application, namely, to reason itself. For the relationship of value and reason can be examined only when axiology is applied to reason. Axiology, in my formal or synthetic sense of the word, is the application of the synthetic procedure to value, the axiomatic identification of value with the logical relation "similarity of intensions," which brought forth the system of formal axiology.

Applying this system to reason represents a higher turn of the spiral: analytic axiological reason was broken down, "reduced," in the Galilean and Cartesian sense, to the axiom of value science. This axiom was expanded constructively, or synthetically, into the system of formal axiology; and now this system is applied again to the original material from which it was first distilled. In the process, the original material appears in an entirely different form, an order that is not its natural or analytic order, but the new systematic order imposed upon it by the system.[3]

The application of the system of formal axiology to analytic axiological reason, besides criticizing that kind of reason, demonstrates the power of synthetic axiological reason, not as in Part Two, merely in its systematic import, but also in its empirical import: axiological philosophy becomes a field of application of axiological science.

I will show this empirical import by applying the axiological system to some paradigmatic moral arguments. These arguments have been selected because they illumine with great clarity the relation between reason and value, and because they are developed in some detail in contemporary ethical theory. They offer the opportunity of comparing the approach at present to the problem in material or analytic axiology with the approach to the same problem in formal or synthetic axiology. In analytic axiology, the approach is philosophical, in the sense of proceeding by exposition of implications contained in certain key concepts. In formal axiology, the approach is scientific in the sense of applying a formal frame of reference to a problem. In Carl G. Hempel's terms, in the first, axiology has *only empirical import*, while in the second, it has *systematic-empirical import*.

According to Hempel, "Concepts with empirical import can be readily defined by any number, but most of them will be of no use for systematic purposes.[4] "They cannot provide any theoretical understanding of the phenomena in question."[5] In ethics, this means that the difference between a theory of merely empirical import and one of systematic-empirical import is that the first is an *ad hoc* account of a limited set of moral phenomena in terms of analytic and material concepts, without systematic connection with the rest of moral philosophy, whereas the second is a *theoretical* representation of the potentially unlimited set of *all* such phenomena, explaining, and indeed determining them on the basis of one formal premise. The difference is again similar to that between alchemy and chemistry. Alchemy was an unconnected multitude of hit and miss stabs at nature; most of present-day ethics is an unconnected multitude of hit and miss stabs at moral nature.

I will demonstrate the difference between these two kinds of axiological procedures, the material-analytic, and the formal-synthetic, with respect to four fundamental problems usually treated in ethical theory, but actually belonging to axiology:

(1) The value of reason for valuation (Chapter Eight),
(2) The symbolic nature of value (Chapter Nine),
(3) The empirical nature of value (Chapter Ten),
(4) The "non-real" nature of value (Chapter Eleven).

The first is the problem of *the axiological value of reason*, the second that of the *symbolization of value*, the third that of the *measurement of value*, and the fourth that of the *formalization of value*.

The four problems will be treated both critically and constructively. The first will demonstrate the inadequacy of analytic concepts to account for the problems in question, which means the inadequacy of the philosophical method itself. The second and third will exhibit the illegitimacy of using pseudo-scientific procedures, either formal procedures without empirical content, or empirical procedures without theoretical form. The fourth will demonstrate that the formal nature of value has been divined negatively in value philosophy: value was considered as neither empirical nor ideal, and hence as "nonreal"; and it will be shown that the notion of the nonreality of value concealed its formal nature. In all four cases we shall first see how present-day moral philosophy treats the subject, and then we will observe the comparative simplicity and elegance of the axiological solution.

The four demonstrations in question are experiments in the empirical import of formal axiology; thus they test the axiological method and its power of solving unsolved ethical problems. As such, they constitute empirico-moral *verifications* of this method. These demonstrations will also give a thorough insight into the difference between the argumentation of present-day ethical philosophy and the scientific procedure of formal axiology. Thus, the analogy between the axiological method and that of natural science will appear in greater detail. At the same time, we shall advance our knowledge of the subject matter discussed, the use of reason in ethics. The four problems will be seen to be interconnected both formally and materially.

The first problem, the axiological value of reason, the topic of this chapter, will be treated from two points of view:

(1) The logical necessity of reason in moral conduct, and

(2) The logical relation between "is" and "ought."

1. The Logical Necessity of Reason in Moral Conduct

Let us first see how this problem is considered in present-day philosophy. I will examine one of the most acute recent discussions, Paul W. Taylor's essay, "Four Types of Ethical Relativism."[6] Ethical relativism is the position that values are relative. The question of the standards in terms of which they are relative is answered by Taylor by giving four types of relativism, (1) social or cultural relativism (moral values are relative to a given society), (2) psychological or contextual relativism (moral values are relative to the situations in which they arise), (3) theoretical or logical relativism (moral values can be rationally justified but only by presupposing the value of reasonableness, which cannot itself be justified), (4) methodological relativism (moral values are relative to the method used to judge them).

The first two kinds of relativism are not interesting for us because they are naturalistic—defining value in terms of society and situations—and we agreed to disregard the naturalistic character of goodness as one of the two obvious defects of traditional ethics (the other being the indefinability of non-naturalistic goodness). But the third and fourth relativisms are relevant to our discussion, and on these we shall concentrate.

A. Logical Relativism: The Problem

The problem of the third kind of relativism, Paul W. Taylor says, comes down to this:

> Can the question, Why be reasonable? be answered without assuming the value of being reasonable and thereby begging the question? The issue is of great importance because it goes to the very heart of the attacks now so violently set in motion throughout the world upon the attempt to lead a rational life.[7]

Taylor distinguishes three senses of the question, the pragmatic, the moral, and the theoretical. In the pragmatic sense, the question means: "Is it useful or prudent in these circumstances to be reasonable?" This question is meaningful.

> It may be answered in the affirmative or in the negative. It is prudent for a person to be reasonable about what is good for his health, but we should hardly say a soldier should try to be reasonable with his enemy on the battlefield. Here again it is perfectly consistent to use reason to justify not using reason.[8]

Or rather, it is reasonable to use reason to justify the utility or prudence of not using reason. Taylor, perhaps not quite legitimately, identifies "Is it useful or prudent?" with "Is it reasonable?"

In the moral sense, the question means: "Am I morally obligated to be reasonable in these circumstances?" and the question whether there is a moral obligation to use reason is, again, a meaningful question. By justifying our moral obligation to be reasonable we do not beg the question about whether we ought to be reasonable, unless "having a moral obligation" is identified with "giving reasons for." Taylor, unfortunately, and again not quite legitimately, makes this identification and thus unnecessarily complicates his argument. He should have said that of course he must give good reasons for the moral obligation to be reasonable, *but these are good reasons for a moral obligation and not good reasons for giving good reasons*. Therefore, no question is begged.

I may very well decide reasonably that it is not my moral obligation to be reasonable, for example, "with an escaped madman who is about to harm my family."[9] Taylor complicates the argument unnecessarily by identifying "being morally obligated" with "giving reasons for" and by changing the question "Am I morally obligated to be reasonable in these circumstances?" into "Am I to give reasons for being reasonable?"—a question, he says, which may be answered by giving such reasons. Taylor further complicates the argument by identifying "to be reasonable in these circumstances" with "using rational procedures in making moral decisions and in resolving moral conflicts,"[10] and thus assigning the moral character, which in his original formulation of the "moral" form of the question—"Am I morally obligated to be reasonable in these circumstances?"—belonged to the obligation to do that to which the obligation refers, namely, to be reasonable. This is an example of the kind of argument with which present-day ethical analysis abounds and which, in its sudden leaps of reasoning, reminds us strikingly of alchemistic arguments in natural philosophy.

The original question becomes: "Am I being reasonable in using rational procedures to make moral decisions and to resolve moral conflicts in these circumstances?" Here "reasonable," or "rational" appear in two senses. Taylor calls them first-order and second-order reasonableness, respectively.

> First-order reasonableness is the use of rational procedure in making moral decisions and in resolving moral conflicts. Now in certain circumstances we may question the moral rightness of being reasonable in this first-order sense, and we may demand reasons for being reasonable in that sense. The satisfying of such a demand by giving reasons is being reasonable in the *second-order* sense. Thus if we give reasons to show that a person ought to be reasonable (in the first-order sense) when he is deciding how many more drinks he should take before driving his friends home from a party, we are being reasonable (in the second-order sense). And if we give reasons to show that a person ought *not* to be reasonable (in the first-order sense) with an escaped madman who is about

> to do harm to his family, we are also being reasonable (in the second-order sense). To try to give good reasons against the use of reason in certain situations is not to contradict oneself, since one is being reasonable in the second-order sense in opposing being reasonable in the first-order sense.[11]

There is no circularity here.

> The very same person may be trying to reason whether or not to be reasonable in the first-order sense. And if in a certain situation his reasoning leads him to decide not to be reasonable (that is, not to use rational procedures) because to do so would be morally wrong, he does not contradict himself, even though he uses rational procedures in opposing the use of rational procedures.[12]

The distinction between first-order and second-order reasonableness is irrelevant to answering the "moral" aspect of the question—arising merely from Taylor's unnecessary identifications; but it is eminently relevant to answering the "theoretical" aspect, where Taylor does not regard it as relevant. In the theoretical interpretation we finally have the clear question "Is it reasonable to be reasonable?" in principle and *überhaupt*. This, Taylor believes,

> is a very peculiar question. In fact it is a question which would never be asked by anyone who thought about what he was saying, since the question, to speak loosely, answers itself. It is admitted that no amount of arguing in the world can make a person who does not want to be reasonable want to be so. For to argue would be to give reasons, and to give reasons already assumes that the person to whom you give them is *seeking* reasons. That is, it assumes his being reasonable. A person who did not want to be reasonable in *any* sense would never ask the question, Why be reasonable? For in asking the question, Why? he is seeking reasons; that is, he is being reasonable in asking the question. The question calls for the use of reason to justify *any* use of reason, including the use of reason to answer the question. No distinction is made between a first-order and a second-order use of reason.[13]

Here we have another confusion. There is no good reason why in the *theoretical* question concerning the reasonableness of the use of reason there should not be made use of the distinction of first-order and second-order reasonableness that Taylor says exists in the *moral* question. In fact, it is much more reasonable to define this distinction in terms of the "theoretical" question than in terms of the "moral" question (as Taylor does without any discoverable connection with his original "moral" form of the question).

Let us define first-order reasonableness as "The actual use of reason," or "The use of reason in actions," or, for short, "rational judgment." And let us define second-order reasonableness as "the rational judgment about or concerning this judgment."

If this in done, it is by no means contradictory, as theoretical relativists, according to Taylor, hold, or meaningless, as Taylor himself holds,[14] to ask "Why be reasonable?" and yet not either be reasonable or expect reasonableness. For there is a difference of logical order between the asking of a question and the content of the question asked. We can neither beg nor contradict a *question* by the *act of questioning*. The question asked and the asking of the question are on different logical levels.

When I ask a question, I *am* reasonable or unreasonable of the first order. But the *content* of the question—and of the answer to it—*mentions* and does not *use* reasonableness or unreasonableness, and thus is reasonable or unreasonable of the second order. In the *act* of asking a question, I can neither beg nor contradict the *content* of the answer to my *question* (although I might beg or contradict, in some sense, the *act* of answering). To say that *asking* the question "Why be reasonable?" could be unreasonable is no contradiction; for we may quite reasonably (first-order) ask something unreasonable (second-order), and *vice-versa*, quite unreasonably (first-order) ask something reasonable (second-order). Hence, Taylor is wrong in his characterization of the question "Why be reasonable?" This question, under his third "theoretical" interpretation,

> is the same as the question, What are good reasons for being reasonable? or, What are good reasons for seeking good reasons? The questioner is thus seeking good reasons for seeking good reasons. The peculiarity of this situation actually derives from the fact that in a strict sense the question is meaningless, since every answer which could possibly be accepted as a satisfactory answer would be a tautology to the effect that it is reasonable to be reasonable. A negative answer to the question 'Is it reasonable to be reasonable?' would express a self-contradiction.[15]

For to say "It is unreasonable to be reasonable" would contradict the reasonableness of saying so.

We have here again the confusion between form and content we have so often encountered, the fallacy of method. Saying something and the content of what is said are on different levels of discourse. Hence the reasonableness of saying something cannot contradict the unreasonableness of what is said, nor inversely, the unreasonableness of saying something the reasonableness of what is said, for example, a madman's shouting that it is reasonable to be reasonable—just as there is no contradiction in the saying by Epimenides the Cretan that "All Cretans are liars"; his saying that they are is on a different level from their being what he says.[16]

But the question *is* begged if the *content* of the question presupposes what is in the question. In an ethical discussion, to say "The good is pleasure" begs the question whether the good "is" anything. Saying "The good is pleasure" and then enjoying evil does not contradict the proposition "The good is pleasure." Propositions may be contradictory to propositions, for example, "The good is not pleasure"; and

actions may be contradictory to actions. But propositions cannot be "contradictory" to actions. The arguments of William Wollaston are instructive here.

Thus Taylor's "logical relativism" is a relativism only when someone commits a fallacy of types. Such a fallacy is committed both by Taylor himself and by the theoretical or logical relativists to whom he replies. According to Taylor, the question "Is it reasonable to be reasonable?" is meaningless for in asking it we are reasonable and thus give the answer in the question. We cannot, says the logical relativist, give reasons for being reasonable, for the content of our reasons would only confirm our action of reasoning. Taylor agrees; but, says he, this is no argument against such a justification of being reasonable. For a demand for—or against it—cannot be meaningfully made either. Persons who justify rationality are neither inconsistent nor unreasonable. And nobody can challenge them and ask, "Why be reasonable?"—without begging the question in asking it. Thus the logical relativist's assertion that we can never justify our being reasonable—because the justification is necessarily rational and begs the question—is itself unjustified. He who begs the question, Taylor explains, is not so much he who justifies his rationality as he who asks him why he does.

I want to make the point that this rather intricate and somewhat confusing argument—reminiscent this time not so much of alchemistic as of scholastic procedure—is really quite irrelevant to the problem. The problem is whether the question "Why be reasonable?" or "Why be rational?" is a meaningful question that can be answered meaningfully. As we have seen, the content of the question must not be confused with the act of asking the question. The *answer* to the content of the question thus must be on the same level as the content of the question itself and not on that of the act of questioning. The answer, in other words, must be a content of a statement and not an act of stating; and the use of rationality or irrationality in the act of asking or of answering has nothing to do *logically* with either the question or the answer.

B. Logical Relativism: The Formal Solution

Let us then see how formal axiology answers the question. According to formal axiology, *anything ought to fulfill its definition.*[17] The definition of "man," sufficient for the present purpose, is: "Man is a rational animal." Therefore, man ought to be rational.

This is really all there is to this "problem." To anyone reproaching us that this solution is too facile and does not take so profound a problem profoundly enough, I can only repeat Salvati's answer to Sagredo's similar reproach, and his observation that people esteem higher what they acquire "through long and obscure discussions" than what they acquire "with so little labor."

> If those who demonstrate with brevity and clearness the fallacy of many popular beliefs were treated with contempt instead of gratitude, the injury would be

> quite bearable; but on the other hand it is very unpleasant and annoying to see men, who claim to be peers of anyone in a certain field of study, take for granted certain conclusions which later are quickly and easily shown to be false.... Indeed, I have heard from our Academician (Galileo) many such fallacies held as true but easily refutable; some of these I have in mind.[18]

We could complicate the matter and ask, "But why use formal axiology?" The answer is, "Because it is a more powerful tool of thinking than old-fashioned value philosophy or common sense." The question, "But why use a more powerful tool of thinking?" comes down to the question, "But why think at all?" which would be applicable not only to moral but also to natural science, and to questions about the whole human enterprise. The answer is again, "Because we are human"; and this fact is difficult to question.

The matter may be complicated in a different way. We may be asking: "What are good reasons for being reasonable?" This is a vastly more complicated question than "Why be reasonable?" For, while the latter could be answered by a simple reference to the definition of the one who is supposed to be reasonable, mankind, the former requires, in addition, a definition of reason. Let us, then, see how formal axiology would tackle this question.

We have here, in addition to first-order and second-order reasonableness, first-order and second-order goodness. For being "reasonable" really means holding that reason is good. Thus, we may reformulate the question as (1) "What reasons are good for holding that reason is good?" And (2) "Why ought we to hold that reason is good?" or "Why ought we to be reasonable (rational)?" To answer these questions the system of axiology must not only define "good" and "ought," but also be capable of accounting consistently for first-order and second-order goodness, namely, the goodness of some *x*—say, reason—and the goodness of a reason for holding that *x* is good.

Let us discuss the first question first: "What reasons are good reasons for holding that *x* is good?" Let us begin by finding out what we mean by good reasons. A good reason, obviously, is a reason that follows good reasoning. Good reasoning is reasoning in accordance with certain rules of reasoning. For example, good mathematical reasoning is reasoning in accordance with the rules of mathematics. The reasoning we are concerned with is not reasoning in terms of number, but reasoning in terms of value. The rules of reasoning in terms of value, we said, are those of axiology. Good reasoning concerning goodness would be reasoning that follows the rules of axiology. The rules of axiology define the goodness of anything, say, *x*. Thus, good reasons for holding that a particular thing *a* is good would be reasoning that tests whether holding that *a* is good follows the definition of goodness given by the system of axiology. And here we have a perfectly good definition of a good reason for holding that *a* is good: there is a good reason for holding that *a* is good if holding that *a* is good conforms to the rules of value reasoning or axiology.

This corresponds to the good reason for holding that two apples and two apples are four apples. If holding that two apples and two apples are four apples agrees with a rule of the system of arithmetic according to which two and two is four, then holding that two apples and two apples are four apples follows good reasoning; and it is held with good reason that two apples and two apples are four apples. Reason, in other words, is a logical network; and giving good reasons is applying the network.

According to physicists Georg Joos, "As soon as we inquire into the *reasons* for the phenomena, we enter the domain of theory, which…connects the observed phenomena and traces them back to single 'pure' phenomena, thus bringing about a logical arrangement."[19] Difficulties in giving good reasons exist only where there is no logical networking covering the phenomena. Where the field is not rationally ordered, its concepts are analytically vague, and reason demands the establishment of a synthetic network. In this sense, we give reasons for value judgments by formal axiology.

The axiological definition of goodness which holds both for the goodness of and that of the reasons for holding that *x* is good would be: "Anything is good if it has the properties a system of axiology attributes to it-as-being-good." Thus, *x* is good if the system of axiology attributes to it certain properties that define it as good; and a reason for holding that *x*'s having these properties is good is a good reason if the system attributed to such a reason also has certain properties that define it as good. The question then is: "What properties should an axiological system assign to a thing to define it as good?" The thing could be anything, including the reason for holding that anything is good. The answer is: "Anything is good if it fulfills its concept," or "Anything is a good member of a class *C* if it is a member of *C* and has all the intensional attributes of *C*." [20] This definition of goodness is applicable both to the goodness of a thing x and to the reason for holding that *x* is good.

If *a* is a reason in a situation, and the definition of reason in a situation is that it must be situationally efficient by having the properties which Taylor enumerates in his pragmatic section,[21] then a good reason in a situation is one that has all these properties, that is, is useful, prudent, a means to the situational end, and so on. And *b* is a good reason for holding that *a* is a good reason in the situation if *b* is a member of the class of reasons for holding that *a* is a good reason in the situation, and has all the intensional attributes of that class. The definition of that class was given above, namely, to be a reason which tests whether holding that *a* is good follows the definition of goodness given by the system of axiology. The latter definition is: "Anything is a good *C* if it is a member of *C* and has all the intensional attributes of *C*." Thus, a good reason for holding that *a* is a good situational reason follows the definition of goodness given by the system. Thus, *b* is a good reason for holding that *a* is a good situational reason if (1) *b* states that *a* is a member of the class of situational reasons, (2) *b* states the attributes that the definition of situational reason enumerates, (3) *b* states that *a* has all the attributes that the definition of situational reason enumerates, (4) *b* states that *a* is a good situational reason in accordance with the definition of

goodness given by the system of axiology. Statement (4) *is a good reason for holding that* a *is a good reason.*

Now let us turn to the second question. "Why *ought* one to be reasonable (rational)?" We now need our definition of "ought," which is that "If *x* is a *C*, *x* ought to be a good *C*."[22] *The value of the variable C* in this case is "man." Thus, If *x* is a man, *x* ought to be a good man. Now we apply our definition of goodness to man. A particular man is good if he has the relevant attributes of the class of men. We again use the time-honored "Man is a rational animal." Thus, the formulation becomes: "If *x* is a man, *x* ought to be a rational animal," and this implies "If *x* is a man, *x* ought to be rational"; *quod erat demonstrandum.*

C. Methodological Relativism: The Problem

Let us now turn to Taylor's fourth kind of relativism, the "methodological," according to which all values depend on the method of their determination. This determination may be intuitive or deductive. If it is intuitive, the relativist may ask: "How do we go about getting such an intuition?" If it is deductive, he may ask: "Why choose one system rather than another?" Taylor believes,

> The challenge of the methodological relativist can be met successfully only in the following manner. The proper answer to the question, Why ought this method rather than that be used to verify moral statements? is simply that this, and not that, is what we *ordinarily mean* by saying that a moral statement is true (what we ordinarily mean, that is, when we have articulated no special theory of ethics). Instead of constructing logical systems or appealing to intuitive feelings to justify moral ballets, suppose we examine the procedures and reasoning actually used in everyday life by ordinary people (that is, people who are not professional moralists or philosophers) in resolving moral conflicts, in justifying moral statements, and in arriving at moral decisions, and then explicate (make explicit) the principles or reasons implicit in this use.[23]

Taylor's solution is Wittgensteinian: "If the methodological relativist still persists in asking, 'Why choose this method rather than that?' and demands an answer to the question, 'Why choose explication as a method?'"[24] we must ask: "What do 'rational,' 'good reasons,' or 'reasonable' mean?" Taylor answers,

> It means what we ordinarily mean by using the terms 'rational,' 'good reasons,' and 'reasonable.' Why should it mean anything else? Explication is simply the process by which this ordinary meaning is brought to light and made precise. If it is then asked, 'But why seek a rational way of settling a dispute, or good reasons for justifying moral beliefs, or a reasonable way of arriving at a moral decision?,' the answer is that we start out to do this because it is a real problem in practical life. People just do try to find out how to be reasonable in questions

of ethics. And explication clarifies for them what is ordinarily meant, that is, what *they* mean, by being reasonable in such matters.[25]

As seen, Taylor falls back on common usage. But this, as we saw in Chapter Four, is not a network of reason. It is the vague *katagoreuein*, the gossiping of people in the market place. In the present context, to speak with Bertrand Russell, it means regarding as moral, reasonable, and rational, what immoral, unreasonable, and irrational people mean when they say immoral, unreasonable, and irrational things, while calling them "moral," "reasonable," and "rational."

(D) Methodological Relativism: The Formal Solution

Let us now see how formal axiology tackles this problem. "Why choose one value system rather than another?" Obviously, this is a question of valuation. Hence, the value systems in question must contain rules to answer it; that is, they must contain rules for choosing anything, including value systems. If one of the value systems in question has no such rules, it is already disqualified; for a value system that contains no rules for choosing—including choosing a value system—is not a good value system. If other value systems in question contain such rules, they are better value systems and ought to be chosen. If none of the value systems contains such rules, none are good and none should be chosen. If all contain such rules, these rules must be compared. Hence, the issues come down to the rules of comparison contained in the value systems in question, and the *application* of these rules of comparison *to* the rules of comparison of the systems. According to formal axiology, these rules follow from the definition of "better." A thing *A* is better than a thing *B* if *A* contains more of the class properties than *B*. Also, according to formal axiology, we ought to choose what is better and not choose what is worse.[26]

Applied to a value system this means that a value system is "better" the more it fulfills the definition of a value system. Therefore, the criterion or the criteria which make, or the lack of which break, a value theory must be defined.

A value theory, obviously, must be a theory of *value*; that is, it must be a theory that accounts for the value world. Any theory that is called a value theory but does not account for the value world is not a value theory. The value world is the totality of all value phenomena. Hence, the one criterion that makes or breaks a value theory is that of *universal applicability.* A theory that is called a value theory and is not universally applicable is not, according to this criterion, a value theory.

Thus, as the proof of a cake is in the eating, so the proof of a value theory is in the application. An elegant and a less elegant way of making this proof are available. The elegant way is to investigate the analyticity or syntheticity of the value theory. The "best" value theory, from the point of view of applicability, will be a formal or synthetic one. Indeed, no value theory that is not formal or synthetic will, by this test, be a value theory. This follows from the very nature of synthetic as against analytic theories.

The less elegant way is to enumerate all the value phenomena to which a value theory is applicable and cross off from membership in the class of value theories any theory that does not account for all the enumerated value phenomena. If there is, other things being equal, only one value phenomenon for which a value theory *A* does not account while a value theory *B* does, then value theory *A* is not a value theory in this respect.

In addition to the extensional criterion of applicability, we may admit some intensional criteria for evaluating a value theory. Thus, among two equally applicable theories, the one will be better which is more *consistent*; and among two equally consistent theories, the one should be preferred that is more *elegant*, that is to say, achieves its results with the smallest and simplest means (principle of parsimony). Natural science once had to take recourse to this last criterion in deciding the relative merits of the Copernican and the Ptolemaic theories, since at the time both were equally applicable and consistent. The greater elegance of the Copernican theory derived from its greater abstraction. Since the criteria of abstraction and elegance were accessible only to specially trained minds and lead at first sight to absurd results, the acceptance of the Copernican theory was slow and torturous.

In value theory, since we do not yet have many equally consistent applicable theories, we do not yet appeal to the criterion of elegance. Practically, the question of Taylor's "methodological relativist" will probably never arise; for, as Einstein observed in the case of the natural sciences, and for reasons given previously, there will only be *one* theory that will account for the whole field of value. Such a theory must be capable of accounting for a value phenomenon as close to home and as common as the value of a value theory. The applicability of a value theory to philosophy in general, and to value theory in particular, is an important criterion for the validity of a value theory.[27]

Taylor's "methodological relativist" in speaking of the valuation of value theories, fails to take into account the very character of these theories as value theories. The reason is that he uses notions such as "choice," "value," and "theory" in their vague analytic meanings and is thus prevented from fully realizing what he speaks about: that value theories must contain the solution of the question he is asking. The whole argument, therefore, is irrelevant to the problem. The question, "Why ought this method rather than that be used to verify moral statements?" or "Why choose one value system rather than another?" depends on the definitions of "ought," "choose," "better," and so on in the respective value systems. Thus, the question of the methodological relativist is meaningless. If the systems in question really are value theories, they will contain rules for answering the question (and the question will be meaningless because its answer is given with the system). If they are not value theories, then the question is senseless for it does not refer to them. Thus, formal axiology shows as meaningless the question that Taylor regards as meaningful—that of the methodological relativist—and as meaningful the question Taylor regards as meaningless—that of the logical relativist.

My answer to the question as to the logical necessity for reason in human conduct is that this necessity follows logically from the rules of formal axiology when applied to human beings. Let us now discuss the role of reason in morality from another angle.

2. The Logical Relation between "Is" and "Ought"

The relation between "is" and "ought" was previously defined within the framework of the axiological system. I will now show how this definition fits in with the contemporary discussion of the subject and again make a comparison between an analytic treatment of the problem, in the manner of traditional moral philosophy, and the synthetic treatment of formal axiology. I will choose a particularly ingenious text that has the advantage of continuing our discussion where we left off earlier, for it uses the concept of rationality to derive the "ought" from the "is." The discussion in question is by A. Campbell Garnett.[28] While formal axiology derives the "ought" from the "is" through the equivalence of "ought" with the various meanings of the formal relation "it is better that," Garnett finds the "ought" in a material implication of the analytic concept "reasonable."

Garnett's problem is how to account for the normativity of value judgments—not by entailment, as when value is defined in normative terms like "right," "ought," and "duty,"—but when value is defined in non-normative terms, such as "good," understood empirically.

So, how can "good" be empirically defined in such a way that the definition, as part of a first premise in a syllogism, can yield a normative conclusion? Garnett's solution is ingenious. "*X* is good" is equivalent to "*X* is a reasonable object of a favorable attitude." This is a non-normative and empirical definition, in terms of intelligence or reason. Now, says Garnett, although "the term 'good' does not, of itself, entail a normative concept," there "enters through the word 'reasonable' a material implication of normativity into the definition; for it is generally assumed that 'one ought to be reasonable.'" Hence, if *x* is a reasonable object of a favorable attitude, then *x* ought to be made the object of a favorable attitude. Everybody has the obligation to use his or her intelligence. "The principle that one ought to be reasonable, firmly fixed as a basic assumption, thus carries the mind over from '*x* is good' to '*x* ought to be made the object of a favorable attitude'"[29] by a "natural transition," given in the following "implicit syllogism."

> Whatever is a reasonable object of a favorable attitude ought to be made the object of a favorable attitude.
> *X* is good, that is, it is a reasonable object of a favorable attitude.
> Therefore, *X* ought to be made the object of a favorable attitude. [30]

Compare Garnett's definition of "good" with A. C. Ewing's, given earlier. Also compare Kant's remark, "What we call good must be, in the judgment of every

reasonable man, an object of the faculty of desire."[31] Thus, for Garnet, although the obligation to be reasonable is not established by the definition of "good," and neither this nor any other obligation is asserted by use of this term, an assertion of obligation arises by reason of "an independent synthetic proposition assumed by people who use the term." The assertion of reasonableness is not normative, but it is generally assumed to be so.

Garnett's definition claims "to clarify ordinary usage and point out why statements about what is 'good' are generally understood as implying propositions containing an 'ought.'" Garnett's definition of "good" is an empirical one designed to show that element—"reasonable"—which materially implies an ought.

I can well agree with Garnett that the definition of "good" contains an element which implies an "ought." But the claim that the definition of "good" contains an element that implies an "ought" is formal—dealing with a definition; and there is no reason why it should be rendered in empirical terms. Indeed, such a rendering robs the definition of its formal power, for none of its empirical terms—neither "object of a favorable attitude" nor "reasonable"—is necessary in order to bring about the material implication of normativity. "Object of a favorable attitude" is unnecessary, for the implication attaches to "reasonable." The syllogism would be just as valid if expressed as

Whatever is a reasonable A ought to be an A.
X is a reasonable A.
Therefore, *X* ought to be an A.

If we want to define "a reasonable A" in such a way that "*X* is a reasonable A" is equivalent to "*X* is good," we can now use the various empirical definitions of "good" proposed in the literature and substitute for "A" any of them—"object of pleasure," "object of desire," "object of satisfaction," "object of approval," "object of interest," "object of purpose," and so on. All of these would fill the bill, and there are just as many "good" reasons for Garnett to use his definition for "good"—reasons which are "reasonable objects of a favorable attitude" on his part—as there are "good" reasons for other ethicists to use their definitions of "good"—reasons which are "reasonable objects of pleasure," "reasonable objects of satisfaction," and so on for them.

But also the other part of Garnett's definition—the word "reasonable"—shares the arbitrariness of all empirical definitions of "good." Garnett states that there is an assumption that we ought to be reasonable. But another ethicist might say that there is an assumption that we ought to be pleased, or satisfied, or purposive. Would not any other empirical *definientia* of "good" do just as well for the assumption of oughtness?

I might well say that to be reasonable counts for nothing if a person has no goal—since, as Garnett himself says in refuting G. E. Moore, "ought" refers to responsible human actions. Thus, it is purposive rather than reasonable that, in my

opinion, everyone ought to be. Also, I might say I prefer "satisfaction" to a "favorable attitude" as the characteristic of good. Hence, I define "x is good" as "x is a purposive object of satisfaction," and say "Whatever is a purposive object of satisfaction ought to be an object of satisfaction." Then, if x is good, that is, a purposive object of satisfaction, the conclusion is that it ought to be made an object of satisfaction.

Or again, I can use the two characteristics of "good" in the reverse order and define "x is good" as "x is a satisfactory object of purpose," assuming that everybody ought to be satisfied. The point is, the arbitrariness of the empirical level adheres also to that characteristic of "good" to which, according to Garnett, attaches the assumption of normativity: any such characteristic may imply normativity. The definition then becomes "x is good" is equivalent to "x is ϕ and x is A" where it is implied that if x is ϕ, x ought to be A.

But this is quite similar to the definition given in formal axiology.[32] According to this definition, x is a good A if x has all the properties entailed by the concept A. Suppose A entails the properties or, in general, ϕ (ϕ) being the variable of which, α, β, γ, are the values). Then, if x has all the properties ϕ, according to my definition x ought to be an A, where "ought" is the analytic "ought"; if John is manly in every respect he ought to be a man. And indeed, if he is thus manly he will be a good man in this sense of "man"—a good specimen of manliness.

If John did *not* have all the properties of manliness, that is, was not manly in every respect, then he ought not to be a man in this same sense. Here "ought is again analytic because John actually *is not* a man in this sense. Although John is not manly he *ought* to be manly in every respect. Here "ought" is synthetic, for John is *not* manly in every respect and hence ought to be what he *is not*. As is seen, "ought" here arises analytically or synthetically out of a formal non-normative definition of "good." Garnett's definition is of the same general nature, but is not stated in general but in particular terms, and not in synthetic but in analytic terms. As results, in four cases, two for "x is good" (1 and 2), and two for "x is not good" (3 and 4), we have the following:

1. "x is ϕ and x is A," where "x is ϕ" *materially implies* "x ought to be A." (Formal version of Garnett's definition.)
2. "x is ϕ and x is A," where "x is ϕ" *entails* "x ought to be A."
3. "x is not ϕ and x is not A" where "x is not ϕ" *entails* "x ought not to be A."
4. "x is not ϕ and x is not A" where "x is not ϕ" *materially implies* "x ought not to be A."

The traditional treatment of the problem by Garnett, and his use of analytic concepts, such as "reasonable," and "ought," conceals the logical nature of his argument, which is clarified by the synthetic procedure of formal axiology. Here "ought" is derived from "it is better that," which in turn is derived from the definition of "good" as intensional fulfillment. The terms "good" and "better" are thus bridges

between "is" and "ought." "It is better for x to be good rather than bad" is equivalent to "x ought to be good rather than bad." No empirical determinations are needed; the contrary, the Garnettian assumption that we ought to be reasonable can be deduced from the axiological definitions of "good" and "ought" as a *theorem*, as was done in the preceding discussion. Garnett puts the empirical cart before the theoretical horse, as do so many empiricists.

The axiological deduction also saves the argument from the naturalistic fallacy, which gives Garnett some difficulty.[33] He solves it, as do so many empiricists, by stating that it is no fallacy. G. E. Moore's argument, he says, rests on the identification of "good" with "ought to exist," and "ought to exist" either means nothing, or it means something naturalistic like "ought to be favored." Neither of these is Moore's own meaning.

In formal axiology, "ought to exist" does mean something, and it is something non-naturalistic. "Ought" can be taken either (1) analytically or (2) synthetically. Taken (1) analytically, it simply means logical entailment; for a thing to be anything, for example, to be good, it ought to be a thing. Taken (2) synthetically, which is the meaning of Moore, it means a thing ought to be rather than not to be if it is to be good. This means, axiologically, that the existence of a thing is better than its non-existence, and this in turn, according to the definition of "better" above means that an existent thing has more properties than a non-existent thing, which is undoubtedly true. Since, according to (1) a thing cannot be good unless it is a thing, and according to (2) it ought to be a thing rather than not to be a thing, for a thing to be good means that it ought to exist. Moore's hunch thus has an axiological basis; and it implies much more than he sees, certainly much more than his naturalistic critics see. In particular, Moore does not make clear the difference between "is good" and "it is good that." "'*X* is good' means '*x* ought to exist'" is different from "It is good that *x* exists." The second is equivalent to "It is good for *x* to exist" or "The existence of *x* is good for x." According to the definition of "it is good that" given above, this means that the intension of "the existence of x" overlaps the intension of "x"—and this, again, is undoubtedly true. Besides, it throws light on some famous discussions in the history of philosophy like Edwin T. Mitchell's non-empirical treatment of "existence," "ought," and "good" and G. E. Moore's distinction between "This existing thing is good" and "This would be good if it existed."[34]

To return to Garnett, although his argument can be interpreted and corrected by formal axiology, it cannot, in turn, interpret, or correct, or even lead to such an axiology. The reason is that analytic and material concepts do not contain the precision of meaning possessed by synthetic and formal ones; and no bridge leads from the one to the other. We have to leap, leaving all analytic, abstractive, and categorial thinking behind, and boldly enter synthetic, axiomatic thought. The farther analytic argument proceeds, the more involved it becomes, and the more false with respect to material reality. In the end, thought is lost in a labyrinth out of which there is no exit; and if formal logic is applied to this labyrinthine substratum, the confusion is

compounded by the very power of the symbolism. Simple absurdity then becomes high-powered absurdity, as we shall see in the next chapter.

As a look at astrological and alchemical symbolism makes clear, what is true today of analytic arguments in moral philosophy was true for the same kind of argument in natural philosophy. In this case, educated as we are by three hundred years of natural science, a glance at an alchemical or astrological text immediately shows its absurdity. In the case of the analytic approach to moral philosophy, since as yet we have no scientific alternative, we are unable to recognize its falseness. Indeed, we are inclined to confuse intricacy with profundity; and we can sharpen our judgment only if we leap and thus recognize profundity as a failure of understanding, as did both Galileo and Husserl.[35]

An analytic argument is the more plausible the less it is developed, and it becomes the less plausible the more it is developed.[36] A synthetic argument, on the contrary, becomes more plausible the more it is developed and is less plausible the less it is developed. This is because its postulates, simply stated, have no apparent connection with reality; only their elaboration shows the range of their practical applicability. For this reason present-day moral philosophy is suitable for articles rather than books; and William K. Frankena's appeal to moral philosophers to write books rather than articles[37] has deeper meaning than he realized. For the same reason, statements of formal axiology in articles have not found much response among moral philosophers.

Garnett's argument is relatively little developed and hence quite plausible. Let us, then, develop it further and see where it leads. Let us start with his definition. He defines "*x* is good" as "*x* is a reasonable object of a favorable attitude." This is a typical analytic definition, that is, one containing analytic concepts. To understand it we have to define the concepts in it. Garnett does this as follows.

> By a 'favorable' attitude we here mean an attitude inclined to keep, preserve, or promote the thing, or the kind of thing, in question. By saying that an attitude is reasonable we mean that the attitude is such as would arise from an enlightened understanding of the object and of one's self and of the relation of the object to one's self.[38]

This leads him to a new formulation of his definition: "'*x* is good' means '*x* is an object toward which enlightened understanding tends to develop a favorable attitude.'"[39] Actually, Garnett has not used his complete definitions of "favorable" and "reasonable" in this reformulation. A full formulation would be: "'*x* is good' means '*x* is an object toward which enlightened understanding of the object and of one's self, and of the relation of the object to one's self, tends to develop an attitude inclined to keep, preserve, or promote the thing, or the kind of thing, in question.'" The next step then would be analysis of "enlightened" and "understanding," then an analysis of "self" and of an "enlightened understanding of the self," then of the

"object" and of an "enlightened understanding of it," then of "the relation between the object and the self," and of "an enlightened understanding of this relation."

All of this implies not only, as Garnett holds, a study of psychology—to which he wants to reduce ethics rather than letting her continue her "wandering in the stratosphere of non-natural properties and in the wilderness of non-cognitive meanings,"[40]—but also a study of epistemology (the relation between subject and object), ecology (the relation between subject and environment), history and education (the nature of "enlightened"), and all kinds of natural sciences such as chemistry, physics, education, refrigeration, maintenance, management, depending on what the thing to be kept, preserved, or promoted is. All these ought to be developed; but no rule is given for how this tremendous mass of material ought to be organized and differentiated to become ethical. Rather, all is left the way it is; thought receives no directions for guiding itself in this chaos or for applying what the definition means to reality. So, keeping a jar of marmalade in the icebox would be fully in accordance with the definition; it would be a moral action based on a moral object. Thus, the definition is certainly too wide.

But is it actually false? In many cases an object falls under it, as a reasonable object of a favorable attitude; and yet it is not good but bad. In other instances, an unreasonable attitude is taken toward an object that is good, or a reasonably favorable attitude is taken toward one that is bad. In some cases, in other words, people say that "*x* is good" but (a) it is unreasonable to adopt a favorable attitude toward x, or (b) it is reasonable to adopt an unfavorable attitude toward x, or (c) reasonableness is not in question at all.

(a) Suppose an adulterer speaks of his mistress and says: "Boy, is she good!" but he loves his wife and knows that it is unreasonable to adopt a favorable attitude toward the mistress. Or take Dean Acheson who said: "Alger Hiss is good. I shall not turn my back on him." Yet he knows that in view of the verdict against Hiss it is unreasonable to adopt such a favorable attitude toward him. Or take Romeo and Juliet, loving each other, yet knowing it is unreasonable. Indeed, any case where a person regards as good anything "against his better judgment"—and these are often profoundly moral cases—belongs here. Of course, Garnett could say that in such cases people really don't mean that "*x* is good." But, like the young man at Ipswich mentioned earlier (p. 30), it certainly seems they do.

(b) "It is better to be smart than good." Here it is assumed that it is reasonable to adopt an unfavorable attitude toward what is good. "There is more joy in heaven for one sinner that repenteth than for ninety-nine good men who need no repentance"; here we have the same case. Confucius said, "Look at these good men—I hate them" because they were so good they saw no evil and did nothing against it. Confucius had in mind the *hsiangyuan*, who were goodie-goodies who act "on a conscience not their own" and are "the thieves of virtue."[41] Consider also William Makepeace Thackeray's remark: "The wicked are wicked, no doubt, and they go astray and they fall, and they come by their deserts; but who can tell the mischief which the very virtuous do?" "She is a really good girl—I have no use for her," says Don Juan and those like him.

"He is good for nothing—but I love him." "He is no good—but adorable." If x is not good it ought to mean that it is reasonable to adopt an unfavorable attitude toward x. But this is often not the case. "I love him because he is such a bad boy." "This is his best book—just as lousy as all the rest." "Let's be bad together," says boy to girl.

Clearly, in many cases, what is good is reasonably regarded as object of an unfavorable attitude, and what is not good is reasonably regarded as an object of a favorable attitude. Often "good" is used to express an unfavorable attitude, as in the term "do-gooder," or Winston Churchill's verdict on one of his painter colleagues: "An excellent example of modern art" (which he detested). Consider this judgment on Henri Matisse: "He is a fine home decorator," or this on President Dwight Eisenhower: "He is a good golf player."

Formal axiology makes it clear that there are several levels of goodness, some of which may be bad in terms of others. Whenever concept B represents a set of properties which do not fulfill the set of concept A, then in terms of A, B is bad. Hence, to say that x is a good B signifies that x is a bad A. In this way "good," quite systematically, may be used as universal term of condemnation.[42] This is the core of irony, a use of "good" that Garnett did not take into account.

Beyond that, various levels of value like formal value, phenomenal value, and axiological value may be in contradiction one with another, and thus one person's good may be another person's bad. Said Henry David Thoreau,

> How wholesome winter is, how good, above all mere sentimental, warm-blooded, short-lived, soft-hearted moral goodness. The greater part of what my neighbors call good I believe in my soul to be bad, and if I repent of anything, it is very likely to be my good behavior.[43]

A more outspoken unfavorable attitude to moral goodness is hardly possible, and it is by no means self-contradictory, as Garnett holds.[44] It would not even be self-contradictory if by "moral goodness" speakers actually mean only what they themselves rather than others call so. Obviously, the rejection by oneself of what one calls good is a profound axiological phenomenon; and to exclude it from axiology would mean to excise out of value theory a most significant value phenomenon. In this sense, the following remark by Oscar Levant is a definite refutation of the emotive theory of value: "I don't drink liquor. I don't like it. It makes me feel good."[45]

The separation of words and meanings from attitudes and actions is one of the most characteristic features of human life and history. In combining the two, on principle and at the very base of its argument, emotivist ethical theory not only commits the fallacy of method but in doing so cuts itself off from relevant insight into much of moral reality.

(c) When I say that candy tastes good I do not assume any reasonableness on the part of anybody toward the candy. I merely state that it tastes good or is good because I have this sensation at the moment. When a mother sees her child drowning, jumps after him although she cannot swim, and drowns herself, she acts not at all

from reason, but from mere instinct, even if, before jumping, she should exclaim: "I have a favorable attitude toward my boy." Similar is the case of the often-described scene where a quarreling couple resents any interference, and the famous remark: "It's none of your business if my hubby beats me." This may be a reasonably favorable attitude toward something bad, or an unreasonably favorable attitude toward something good, or, most probably, neither, but simply nature speaking her mysterious but well-founded language.

Formal axiology interprets all these cases as value transpositions, which are exactly defined. The wife enjoying being beaten by her husband, for example, values intrinsically the intrinsic disvaluation of an intrinsic value, synthetically expressed as "$(I_I)^I$."[46]

In an infinity of cases, Garnett's definition proves to be wrong. It is too wide, and hence inadequate to cover the subtleties of moral thought and action. Yet, it is one of the most sophisticated analytic definitions of "good." This demonstrates that material concepts are insufficient to account for morality. A finer, more flexible, and more precise instrument must be developed, the formal concept.

Formal axiology answers for us questions that the material procedure of value philosophy leaves in the dark. The formal procedure is not simpler, absolutely speaking, than the philosophical procedure, even though it is simpler relatively speaking, when compared with its explicative power or precision. That it is more precise and that it is not simpler have the same reason: the synthetic intension grows—rather than decreases—with the generality of its extension, that is, its subject matter.

This subject matter, in the present case, is the value of reason for valuation.

Nine

THE SYMBOLIZATION OF VALUE

Demonstration is based on notions, not on notations.[1] Karl Friedrich Gauss, said with reference to Waring's theorem.

This chapter will consider another form of ethical theory that is not so much inadequate as illegitimate. It does not deal inadequately with reason but *illegitimately uses reason.* Its defect is not only in employing analytic rather than synthetic concepts, but, in addition, in employing synthetic concepts in an arbitrary and illicit manner—in applying unexamined synthetic formulae to equally unexamined analytic material.

1. The Transposition of Synthetic System and Analytic Reality

The creation of a science is only possible if the thinker steeps himself in the subject and concentrates the infinity of its significations in one infinitesimal core.[2] The symbols arising out of such a concentration prove their correctness by the facility[3] with which they fit their phenomena, their systematic-empirical import. The formal procedure thus presupposes profound empirical insight, and the empirical insight a lofty formal structure. For this reason, mathematics has the peculiar capacity observed by Alfred North Whitehead and called by him the most impressive feature of modern science: to be at the same time most abstract and most concrete.[4] For this reason also, the analytic procedure is inadequate; it is based on common sense and hence lacks the innermost phenomenal penetration. The creation of a science, thus, presupposes a kind of thinking profoundly different from analytic common sense thinking. It is in one sense, more deeply material, for it delves into the depth of the subject matter, and, in another sense, completely nonmaterial, for it leaps up to the stratosphere of formalism. It thus seems to disregard completely the common sense sphere of thought, both undercutting it in depth and overarching it in height. It is like an oscillating current enveloping but never touching the wire that conducts it. The synthetic concept is thus like a field of force surrounding the analytic one.

In ethics, this kind of thinking is extremely rare. The use of reason here revels in everyday thought and language, mixing up, in the process, ethics with its own subject matter, morals. It is therefore equally important to speak of the use of reason in *ethical* thinking—in ethics—as to speak of it in *moral* thinking, the subject matter of ethics. Both the moral agent and the ethicist must be rational.

In the preceding chapter we saw that ethical analytic thinking is inadequate when applied to the use of reason in *moral* thinking. In this chapter we shall deal with the inadequacy of analytic reasoning in ethics itself. Paul W. Taylor and A. C. Garnett tried to account ethically for the use of reason *by the moral agent*, the

subject of ethical theory: Taylor discussed the justification of the moral use of reason by ethical theory; Garnett used rationality as an element in the ethical definition of the fundamental moral concept, goodness. Both proceeded in a common sense manner, with explicit reference to, and basing themselves upon, everyday language.

We shall now turn to illegitimate uses of reason in *ethics*. The endeavor of the ethicists discussed in this and the following chapter to clarify ethics by logic is praiseworthy; but the ethics to which they apply their formalism is not of the kind to which formalism can be applied. It consists of everyday analytic concepts. In applying the power of theoretical "scientific" devices—symbols, statistics, and so on—to such concepts, these ethicists are wrong in a more powerful and definite way than the analytic ethicists who content themselves with the second level of value language. They are, so to speak in the antechamber of the scientific tabernacle, free to enter it or not; but the pseudo-scientific ethicists have already stepped through the wrong door and find themselves in a labyrinth, the only way out of which would be to retrace their steps, recognize their mistake, and start all over again, something no self-respecting philosopher can do unless he is a true scientist like the Aristotelian professor who set out to write an attack against Galileo and, after studying Galileo's theory, wound up writing a defense.

It is illegitimate, thus, to apply "scientific" reasoning to common sense data. Scientific reasoning, as we have seen, is formal and material, theoretical and empirical. The two aspects of science cannot be separated, unless the organic structure of science is violated. For, as we have seen, theoretical reason has no basis without empirical foundation, and empirical foundation no organization without theoretical reason. Theoretical and empirical import belong together. Thus, to separate either the one or the other aspect of the scientific activity and relate it—not to the other aspect but to some third and extraneous entity, for example, the non-scientific material of *analytic* thought—is like transforming heads and bodies. The result is more likely to be a monstrosity than the delightful solution of Thomas Mann's tale.We cannot just borrow one phase of the oscillation that is science and apply it to the wire. The result will not be a current but a dud.

Some such experiments happen to exist in present-day moral theory. They are based on the faulty empirical views, Wittgensteinian and others, that were discussed in a preceding chapter. Instead of penetrating to the core of the moral experience, as the true empiricist would, these empiricists take for granted what common people say in a common sense way about value. They apply to this common sense material the procedures of theoretic-empirical science, either "theoretically," by devising a symbolism that is supposed to account for this material, or "empirically," by applying to it statistical methods such as rating, scaling, classifying, and so on, and proclaiming the results as insight, not into the frequency of popular rhetorical occurrences, but into the *meaning* of the phenomenon that people talk about, and that is supposed to be what people think it is. This is as if Galileo,

when investigating the phenomenon of motion, had organized a poll and tabulated the answers as an insight into the phenomenon of mechanics.

The result of such procedures, either "theoretical" or "empirical," cannot but be illegitimate; for if science is the combination, the linkage between theory and practice, both welded into one by the essential nature of the phenomenon, then it is unscientific and indeed nonsensical to apply symbolic form to the common sense content, or to produce a statistical or similar theory out of it. The common sense material and its analytic concepts can serve only as stepping-stones for new synthetic insight and must be discarded and replaced by synthetic extension as soon as the theory is created. To combine *on principle* analytic extension and synthetic intension, and call it either a new science or a new logic, is to call a centaur either a racehorse or a sage.

The only legitimate content of scientific theory is the corresponding synthetic reality.[5] Where there is no such reality, and the old common sense material is used as content, we have a pseudo-form with a pseudo-content; a procedure methodologically identical with that of the alchemists, who used a pseudo-form, such as Pythagorean numbers, and applied it to pseudo-material—concoctions of all kinds—human hair broiled with onions at midnight, and so on. The alchemists also produced fancy concepts, such as "Fountain of Youth," and "Philosopher's Stone" in order to account for their pseudo-operation in terms of a goal which they darkly divined, and which was eventually to be reached by science: health through chemotherapy, and the transmutation of elements through chemistry. For a clear and simple discussion of the scientific nonsense of alchemy, see Henry M. Pachter, *Magic into Science: The Story of Paracelsus*.[6]

The following two chapters, then, will consider exercises in something we may call axiological alchemy, first in its Pythagorean, then in its Paracelsian aspect. This will teach us the difference between illegitimate and legitimate "scientific" procedure in value theory. Illegitimate procedure is based on identifying common sense discourse with the nature of things; legitimate procedure, derived from G. E. Moore, is based on penetrating to the essence of the subject matter. We shall see how simply and elegantly formal axiology solves problems otherwise extremely involved and indeed unsolvable.

We shall first examine an illegitimate and incorrect application of symbolic formalism to ethical material not properly prepared for such application. A text of recent ethical literature that continues our discussion about the nature of "rationality" and "ought" is Everett W. Hall's work on the syntax of value sentences and the symbolic rendering of "ought."[7] Again we shall see how very close analytic thinking comes to the synthetic solution, and yet how infinitely far it is from it.

In the light of G. E. Moore's analysis, scientific ethics must be based on the nature of good; all ethical terms, including "ought," must be deduced from it. From the point of view of scientific ethics in the Moorean sense, basing axiology on "ought" rather than on "good" is a wrong choice. As long as Moorean axiology does not exist and cannot demonstrate its efficiency, there are only intuitive rea-

sons for preferring "good" to "ought" as the value fundamental. Yet, the history of the two terms ought to warn any inquirer earnestly interested in the rational understanding of moral phenomena against deciding for "ought." "Good" has its origin in the clarity of Platonic rationality which, in the hands of Kepler, led to modern science. "Ought," has its origin in the "noumenal" *tour de force* of Kant; it is steeped in irrationality. The choice of either one or the other, thus, already gives an indication of a writer's axiological direction. The difference between the two ought, from the beginning, to direct a writer's axiological choice.

The more rationally inclined writers are, the more they will tend toward "good"; the less rationally inclined, the more they will tend toward "ought." Garnett makes the rational choice and attempts to derive "ought" from "good" by an additional rational postulate; but Hall makes the irrational choice and attempts to derive "good" by a pseudo-rational postulate from "ought." That on the basis of fundamentally so irrational a procedure he arrives at a structure of value so close to—indeed only a hair's breadth removed from—so rational a position as that of formal axiology, is an extraordinary achievement. It is no less an achievement to arrive, on the basis of fundamentally so rational a procedure as that of formal axiology, at a structure of value only a hair's breadth removed from that of Hall. The difference is that formal axiology is capable of solving clearly and consistently what for Hall, admittedly, are insuperable problems. The hair's breadth thus covers an abyss—that between analytic and synthetic procedures.

Hall's term "teleologists" does not adequately cover all those who start with "good" like Plato, Plotinus, Spinoza, and many others whose "good" is by no means teleological. Oliver A. Johnson has written a well-balanced discussion of teleology and deontology.[8] The issue between the partisans of "ought" and those of "good"—the deontologists and the axio-ontologists, as we may call them—will never be resolved until and unless either explicit axiologies are constructed on both bases and their mutual advantages and disadvantages compared in the way we saw axiologies must be compared,[9] or else at least one such axiology is constructed and applied to the problems encountered by the other. Since we are fortunate enough to possess in formal axiology such an instrument of criticism, we can apply it to a significant aspect of Hall's deontological position.

We shall in this way continue the discussion of "ought" begun in the previous chapter. Garnett's position is opposed to that of the deontologists, at least in certain important respects, and close to my own. His insistence on the rationality of the ethical enterprise and on the primacy of "good" over "ought" are both sides of one and the same coin. He chose the rational way in ethics. While "ought" as the bearer of "good" corrupts "good" and afflicts it with all the weaknesses of which "ought" is heir, due to its Kantian origin, "good" is free from the irrational weight of "ought." See A. C. Ewing's many attempts to define "good,"[10] which is a rational and indeed logical concept, as Ewing indicates; but Ewing did not realize that "ought" can be logically defined.[11] "Good" can serve as a basis for the rational and even logical definition of "ought." Garnett divines this, even though

he falls victim to the snare of the "ought"—its "imperative," "commanding," "attitudinal" aspects[12]—and disentangles himself only with great difficulty from the mesh by cutting through it with the edge of his definitional element "reasonable." Unfortunately, this Gordian stroke results in an even worse tangle, and the loose ends threaten to become a Hydra that devours all rational possibilities.

The only way out is the one I have taken, to throw overboard the entire "normative" apparatus, start all over again with a clean slate, and define "good" in a way that removes it from the controversies of the schools and makes it capable of solving their problems. To do so it is not necessary—although it is possible,[13]—to follow the present-day fashion in ethical theory and take our cue from the *Oxford English Dictionary*,[14] but we may take it more appropriately from value theory and the nature of axiological reality as divined by G. E. Moore. The resulting formal definition is capable of being applied impartially to all the warring schools. To apply it to Hall, after having applied it to Garnett, will further demonstrate the systematic-empirical import of my method.

Since, as we have seen, the proof of a value theory is in the application, as that of a pudding is in the eating, let us first apply formal axiology to Hall's theory. Then, Hall's attempts to solve a specific problem with his theory will be compared with the application of formal axiology to these problems.

2. Analytic and Synthetic Formulae: "Exemplification" and Intensional Fulfillment

Hall tries to "get at" the nature of value reality "through the structure of value sentences."[15] His "programme" is to treat "all value-predicative sentences of ordinary speech as disguised and incomplete normative sentences."[16] Hall explains,

> Value-predicative sentences in ordinary speech having the form '*a* is good,' where '*a*' is the name of a particular, are incomplete in their value-component in a way which can be expressed by the use of a variable, '*a* is good' thus being properly rendered 'There is a property, *X*, such that it were good that a exemplify *X*.' Now this last sentience, it seems to me, is as it stands a perfectly good normative. It would probably seem more acceptable, as driving the full sense of '*a* is good,' than, for instance, 'There is a property, *X*, such that a ought to exemplify *X*'; but this I think is mainly because the value-requiredness in it is less harsh ('it were good that' is a softer expression than 'ought to')....We may then preserve and even I think clarify the meaning of such everyday expressions as '*a* is good' (here '*a*' names a particular) by replacing them by a conjunction similar to 'There is a property, *X*, such that *a* ought to exemplify *X* and *a* does exemplify *X*.'[17]

Let us first see how Hall arrives at this formula for "*a* is good," and then what it means. Hall arrives at this formula by the following four-step argument,

where each succeeding step is supposed to be identical in meaning with the preceding: (1) "*x* is good," (2) "it is good that *x*..." (3) "it were good that *x*" (4) "*x* ought to…" Let us see how legitimate this sequence is.

(1) Hall begins his argument with the insight common to all axiologists, that "*x* is good" means more than it shows. What it does not show, according to Hall, is (a) a property which is "a specification of the respect or respects in which John is said to be good,"[18] for example, "kindly," and (b) some normative sentence; for sentences of the form "John is good" are "incomplete normatives."

> For some reason, be it commendable social discretion or reprehensible personal laziness, we do not in such cases want to formulate the whole normative sentence. We omit, as the case may be, the subject or the predicate. To make it appear that we have a full sentence we throw the whole into an apparently declarative form with a value-term as predicate.[19]

Hall then combines "John is good" with "John is always kindly" in such a way that, through the sequence of the four propositions mentioned, there arises "John ought to be kindly." The first step is the identification of "John is good" with "It is good that John is always kindly." Hall says, "It would then not seem too inappropriate to claim that 'John is good' in this situation was elliptical for 'That John is always kindly is good' or 'It is good that John is always kindly.'"[20]

This identification, obviously, is crucial, not only for Hall's argument, but also for whatever axiological position he claims. For if "*x* is good" is identical with "it is good that *x* is ..." then, if this is to mean more than "it is good that *x* is good" and hence "…" stands for an attribute other than "good"—the equivalence means committing the naturalistic fallacy. For, the goodness of *x* would be identified with the goodness of *x*'s having any property other than good, such as kindness or pleasantness; and this identification is one aspect of the fallacy in question.

For a value theory to propose "programme" of this sort is certainly no trifle. To do so without any examination, in the very heart of the argument, seems to be less than "analytic," except in my own sense if the word, which means lack of penetration. Hall skips over all the fundamental questions connected with this identification by saying "it would not seem too inappropriate," but in the light of formal axiology, it would. Not only is there a definite logical[21] difference between "*x* is good" and "it is good that *x* is…," a difference which is obvious even to common sense inspection, there is also the profound axiological difference mentioned. Identification of the two expressions means that the goodness of *x* may be identified with the goodness of *x*'s having any property whatsoever: "*x* is good" may mean "it is good that *x* is ϕ" where "ϕ" stands for any property. Thus, "*x* is good" may mean "it is good that *x* is kindly," but it may also mean "it is good that *x* slits throats," "it is good that *x* vomits," "it is good that *x* is a square root," and so on. Thus, not only does the identification commit the naturalistic fallacy, it does

not even set any limit as to the property other than "good" that x has to have for x to be good. This first step, then, is so vague as actually to be meaningless.

Hall's analysis at this crucial point is much more obscure than Moore's, who at least made "good" dependent on the natural properties of the thing that is good. And it is much more vague than my own theory, which defines Moore's and determines in detail the property ϕ that x must possess in order to be good, namely, the intensional properties of the class of which it is said to be a good member. It is difficult to escape the conclusion that Hall's first step—saying that "x is good" is equivalent to "it is good that x is ..."—is logically false, axiologically illegitimate, and actually meaningless.

(2) The second step compounds these errors. Hall now identifies "it is good that x is..." with "it were good that x be..."; and he does so for the peculiar reason of showing "value-assertiveness as different from factual assertiveness."[22] The sentence, "It is good that John is always kindly,"

> apparently asserts, besides a value, a fact, namely that John is always kindly. I do not wish to dispute this. It may well be that every value predicative sentence similar to 'John is good' (in hiding or suppressing its real predicate) is in part an elliptical factual assertion. But if so, we may set this factual element aside, for clearly it is not all. The value-predicative sentence is also a value-sentence, and it is this that we are trying to analyze. Let us put this component in the subjunctive form, not meaning thereby to indicate anything contrary-to-fact, but just value-assertiveness as different from factual assertiveness. In the situation considered above, 'John is good' is, in respect of its value-component, elliptical for 'It were good that John be always kindly.'[23]

First of all, there is no reason why "it were good that x be…" should be a value assertion except on the basis of Hall's assumption that (a) value is normative and (b) "it were good" and so on are normative expressions. But on this basis, this step is superfluous, for it begs the question; and since there is no other basis for this identification, it is arbitrary and erroneous, as was the first. Again, there is a fundamental logical difference between "It is good that John is kindly" and "It were good that John be kindly," which is obvious to common sense inspection, and which Hall introduces by a kind of sleight of hand, by exploiting the vague similarity between "different-from-fact" and "contrary-to-fact." A fundamental axiological significance exists in this substitution of subjunctive for indicative, but it is not the one that Hall had in mind. Hall introduces the "valuative form of contrary-to-fact conditional"[24] in order to account for a phenomenon that puzzles him greatly and which we may call the Cheshire-cat nature of fact and value: the value may exist without the fact, as the grin may exist without the cat.

> Let us recall what is needed. It is held that value is a property of facts. Yet it is recognized that in some sense it is independent of facts, can obtain when the appropriate fact does not exist, and can be asserted without the assertion of the correlated fact. It is to mitigate this paradox that appeal is made to contrary-to-fact conditionals, to sentences of the form 'If a were *A* it would be good' or 'If a's being *A* were the case, that (state of affairs) would be good.' Here 'good' appears to function as a predicate whose subject is a reference to a state of affairs that does not exist.[25]

Hall is led to this Lewis Carollian construction by his pseudo-ontological view of value. Value "is" and fact "is," but the ways in which they "are" is a mystery. They somehow belong together and they somehow don't; and by introducing the "valuative form of contrary-to-fact conditional," Hall somehow tries to "mitigate" the "paradox" in an attempt to have his factual cake with or without its valuational icing, and the icing with or without the cake. To use the context of Alice in Wonderland, he tries to go in both directions at once, or in neither since both, fact and value, are unknown.

> 'Would you tell me, please, which way I ought to go from here?'
> 'That depends a good deal on where you want to get to,' said the Cat.
> 'I don't much care where,' said Alice.
> 'Then it doesn't matter which way you go,' said the Cat.
> '—so long as I get somewhere,' Alice added as an explanation.
> 'Oh, you're sure to do that,' said the Cat, 'if you only walk long enough.'[26]

In my analysis, the question whether value can appear without fact or fact without value is as meaningful or as meaningless as the question whether the convex can appear without the concave or the concave without the convex, or, to remain in the *Alice in Wonderland* context, whether the Cheshire cat is mad because it growls when it is pleased and wags its tail when it is angry, or whether the dog is mad because it growls when it is angry and wags its tail when it is pleased. Actually, the question is meaningless; for it presupposes the previous determination of the ways fact and value "are." For me, they "are" not at all: they are two among an infinity of aspects in which any datum can appear (another such aspect, for example, would be the musical).

The totality of these aspects, as we have seen above, is value. Fact is one specific value property broken down into primary value properties, which are called "descriptive" properties. Inversely, then, value is the quantification of descriptive properties. It is then possible for value to appear without fact, or for fact to appear without value.[27] If a value property is the quantification of the descriptive properties of a thing, and the thing and its descriptive properties are fact, then value by itself would be the quantification of the descriptive properties without the

thing. Language has an ingenious means of expressing such mere value: the metaphor.

A metaphor is a set of descriptive properties without its referent, and hence applicable to anything. It is, in other words, pure intension. A metaphorical peach is the set of peach properties, or the peach intension, applicable to anything. A peach of a girl, a peach of a car, a peach of a dog are such applications. If a girl, a car, a dog are, descriptively, members of their respective classes C with their respective sets of class properties, ϕ and a peach is a member of its class, D, with *its* set of class properties, ψ, then in a peach of a girl, the girlishness ϕ of some girl x has been imbued with peachiness, ψ, which means that the girlishness of x is peachy, or x is a peach of a girl. This may be signified by $\psi(\phi x)$. Since, theoretically, any intension may serve as a metaphor, any name, as pure intension, may serve as a value property for any combination of intension and extension, that is, for any other name both signified and exemplified. This means that the language of metaphor is (1) the language of pure intension without extensional reference, and (2) the language of pure value without factual reference. If descriptive language is a denumerable infinity of elements ($\aleph_0$), then metaphorical language is a non-denumerable infinity of elements ($\aleph_1$), since each of its denumerably infinite elements has denumerably infinite applications, and $2^{\aleph_0} = \aleph_1$.[28]

Hall's substitution of subjunctive for indicative does not have the axiological significance for me that it has for Hall. But it has another significance, which makes this substitution not irrelevant—but illegitimate. The substitution is made in order to show the difference between "value-assertiveness" and "factual assertiveness." Presupposed is that "John is kindly" is factual assertiveness"; but this seems obviously erroneous, for a person that is "kindly" clearly is a person who possesses value. The vagueness of Hall's analysis and his identification of the valuational with the normative makes him overlook the obvious value character of value-predicates other than "good" and gives him no criterion to differentiate between them, even if he would recognize them as value predicates. Although this second step in the argument presupposes a criterion for distinguishing between value predicates and factual predicates, Hall's doctrine lacks such a criterion.[29]

The second step in Hall's argument also vitiates his final formula, for the "property" that John ought to and does exemplify in order to be good may be a value property as well as a factual one. In Hall's example of kindliness, it actually is a value property, and this destroys the whole distinction on which Hall bases his analysis. Rather than "specifying" the value property "good" by a factual property, he "specifies" it by the property "kindly," which has the same shortcomings as "good" itself, according to Hall's analysis, namely, being a value predicate. Thus he explains *ignotum per ignotius*. His second step not only compounds the error of the first, but is itself both logically erroneous and axiologically illegitimate.

(3) The third step is the identification of "it were good that" with "ought to." Again, this is neither explained nor analyzed, except by saying that "'it were good that' is a softer expression than 'ought to'" and that it is "less harsh." But what

"softer" and "less harsh" mean logically—and the "programme" is supposedly based on the logical structure of value sentences—is nowhere explained, nor could it be, for these are logical terms. They are typically analytic expressions, in my sense of the word, which means synthetically or logically meaningless. Axiologically, the identification is false for, as we have seen, "ought to" is equivalent to "it is better that." If Hall wants to establish that it is equivalent to "it were good that...," he would have to demonstrate this logically and within a coherent and explicit pattern. As it stands, the third step cannot be regarded otherwise than as logically meaningless and axiologically false.

The whole sequence, then, is one of non-sequiturs. It is based on apparent identities of "good"-expressions, without analysis of the logical context in which "good" appears. It strings together entirely different meanings, such as "is good," "it is good that," "it were good that" either without examining, or by examining in a bizarre manner, the logical and axiological relationships between these expressions. It is thus a typical example of an analytic as against a synthetic, a "common sense" as against a scientific, argument. It is difficult to see in which respect, methodologically and logically, this is different from Francesco Sizzi's argument against Galileo's moons of Jupiter.[30] What for Hall is the common sense word "good" for Sizzi is the common sense word "seven." Sizzi's argument was based on apparent identities of "seven"-expressions without analysis of the contexts in which "seven" appears. It strings together entirely different meanings, such as "seven windows in the head," "seven metals," "seven days of the week," "seven planets" without examining, or by examining in a bizarre manner, the logical and scientific relationship between these expressions. It is thus a typical example of an analytic as against a synthetic, a "common sense" as against a scientific argument. Sizzi used the number "seven" analytically and not, as Galileo did, synthetically; and Hall uses the axiological term "good" analytically and not, as is done in formal axiology, synthetically. Thus, his argument is an example of what I call axiological alchemy or astrology.

Adding to this uncritical use of "good"-expressions, in the second step—Hall's identification of value terms with factual terms—it is difficult to see why the whole argument has been undertaken and why Hall did not simply, as did Garnett, in a similar case, rather than deduce or try to justify—just posit "*a* is good" as meaning the formula "There is a property *X*, such that *a* ought to exemplify *X*, and *a* does exemplify *X*." As a deduction or an argument leading from "*a* is good" to this formula, the steps of Hall's argument are not only superfluous—for they are based on the premise that is supposed to arise as a conclusion, that the valuational is the normative—but also damaging to his thesis, for their own errors illuminate the illegitimacy of this premiss.

All three steps are faulty with respect to the distinction between fact and value. The first statement, in particular, "*x* is good" is a genuine value sentence, and it is elliptical, not because it omits a normative sentence, but because it conceals a series of purely logical propositions, as I have shown elsewhere.[31] Hall's

argument is not suitable for justifying the assumption that this expression is normative, for its normativity arises only through the faulty steps in question. This proves *a contrario* that declarative sentences may be as valuative as normative ones, and normative sentences as factual as declarative ones. "John is good" is a value sentence with a fact copula; and "John ought to tie his shoes" is a fact sentence with a value copula. In the terminology of formal axiology, the first is a mixed logical, and the second a mixed axiological, proposition.[32] Unless formal axiology's fourfold divisions of value propositions into pure logical, mixed logical, mixed axiological, and pure axiological is made, it is difficult to see how order can be brought into the relation between factual and valuational sentences. Simply identifying normative "ought"-sentences with value, and "is"-sentences with fact, and trying to convert "is"-sentences with value predicates into normative ones, leads to the confusions just discussed.

In terms of formal axiology, factual sentences are pure logical, "*x* is *C*," and value sentences like "*x* ought to be good" are pure axiological ones. In between are mixed logical (logico-axiological) ones like "*x* is good," and mixed axiological (axiologico-logical) ones like "*x* ought to be *C*." Using fact-value terminology, we could say that the first are purely factual, the second purely valuational, the third factual-valuational, and the fourth valuational-factual. But these are typically vague material terms that mean little.

In Hall's "philosophical analysis," only what I call axiological propositions —those with the copula "ought"—are valuational; and he has to twist language in order (a) not to exclude mixed logical and (b) to include mixed axiological propositions. The result is (a) the sequence we discussed and (b) absurdities, such as regarding miscellaneous imperatives like "Run!," "Smoke!," "Brush our teeth!," and the various forms of Donald's wearing or not wearing, having to wear or not to wear, oughting to wear or not oughting to wear rubbers—as relevant to the nature of valuation. The analysis of these and other forms of "imperative logic" are examples of what I mean by axiological alchemy.[33]

Linguistic expressions are valuationally relevant not merely by their structure but by their structure as expressing a materially discerned value phenomenon. Lacking such phenomenal penetration, mere structure is apt to lead astray. Before we examine this in detail, and thus enter into the essence of this kind of "normative" approach of which the errors discussed so far are only manifestations, we must examine Hall's "programme" itself and see what, independent of its "deduction," it says and how it relates to formal axiology.

Let us take Hall's formula for "good" at face value: "*a* is good" means "there is a property, *X*, such that *a* ought to exemplify *X*, and *a* does exemplify *X*." As it stands, this may mean anything. For example, "John is good" may mean "There is a property, 'bow-legged,' such that John ought to exemplify 'bow-legged,' and John does exemplify 'bow-legged.'" As such, this formula is too wide and hence useless, at least for axiological purposes, but not for epistemological ones.[34]

Yet, it may be specified in an axiologically valid sense. First, it must be formulated so as not to commit the naturalistic fallacy. Instead of defining "*a* is good," it must define "*a* is a good *A*." The property *X*, instead of being anything whatever, is then the class-property of *a*, namely *A*; and "exemplification" is class membership. "Ought," which is an undefined term, must be replaced by "is." The result is the axiom of formal axiology in its originally proposed form, namely, "'*x* is a good *A*' means '*x* is a member of *A* and has all the intensional attributes of *A*.'"[35]

The axiom of formal axiology is then a specification of Hall's vague statement. It is the formulation of its analytic content in synthetic form: in terms of strictly logical relations. Hall's formula, in this logical specification, is the analytic "ought" form of my axiom: "'*x* is a good *A*' means '*x* ought to be a member of *A*, and *X* is a member of *A*.'"[36] In this specification, what Hall defines is not "*x* is good" but "*x* is a good *A*." Actually, there is no expression "*x* is good" which does not mean, for Hall, "exemplification" of some property, only that, in his formulation, this does not mean anything logically. In my specification, it does: namely, what it usually means in logic, class-membership. Thus, "Socrates is good" does not any more mean, as for Hall, "Socrates ought to be and is anything (valuational?)" but "Socrates is a member of *A* and has all the intensional properties of *A*."

Hall's formula is in some respect very close to mine. It approaches the logical formulation as closely as any analytic determination of "good" and "ought" possibly can. All that Hall needs in order actually to reach it is to take his term "exemplification" seriously—logically rather than epistemologically, synthetically rather than analytically—and without begging the question, that is, without assuming that the property exemplified is a value property.

From the side of this "property," Hall's formula for "*A* is good" is "For any particular *x*, if *x* exemplifies *A* then it were good that *x* exemplify *A*" or (more harshly) 'For any *x*, if *x* exemplifies *A* then *x* ought to exemplify *A*.'"[37] There is no reason why this should not be interpreted as "To be a man is good" means "If Socrates is a man then Socrates ought to be a man." This would be strikingly similar to my definition of "ought," and the theorem that "*x* ought to be good" is always true, since if *x* is an *A* it is better for *x* to fulfill the intensional properties of *A* than not to fulfill them. However, this does not seem to be Hall's meaning. Rather, "*A*" for him seems to stand for a "value"-universal such as "pleasure." But the formula does not express this and thus, in spite of its creator, approaches my own.

Only a hair's breadth of difference separates Hall's formula for "good" and "ought" from my own. Yet, this hair's breadth covers the infinite abyss between analytic and synthetic thinking. Hall's theory is based on the vague and undefined analytic concept "exemplification," whereas mine is based on the exactly defined synthetic concept of intensional fulfillment. This means that my theory has systematic import, because "intension" is a well-defined element in a system, that of

logic; and it has empirical import because its axiom is based on profound penetration into the nature of the value phenomenon itself, Moore's insight into the nature of goodness. Hall's formula lacks systematic import because it consists of vague concepts, such as "exemplification"—analytic concepts, which, as we have seen, "can be readily defined in any number," but are "of no use for systematic purposes."[38]

Lacking systematic import, Hall's formula also lacks empirical import. It is incapable of discerning all-important axiological distinctions, such as those between "is good" and "it is good that," "it is good that" and "it were good that," and so on. Hall's formula is as good a guess as any analytic formula can be, but it is no map for the axiological jungle. In spite of this, Hall uses it as if it were "following the trail of a rabbit 'through all the twists and turns of the underbrush briarpatch,'"[39] and this makes his undertaking such a valiant and desperate effort. It is not, as a synthetic view would be, a bold leap beyond the jungle to the peak from which the whole territory can be mapped.

Following Hall is like following some mythological hero slugging it out with demonic monsters. The analytic concepts with which he struggles have an uncanny capacity for sprouting ever-new heads with which to devour, ever-new fangs with which to ensnare him. We sigh with relief at the end because, even though he did not conquer, the hero at least survived. The jungle is still as it was before his Odyssey, only more formidable. Thus, Hall "records [his] progress as he has gallantly fought his way out of the jungle; many readers will regret that he has brought out so much of the jungle with him."[40] And some may well question the legitimacy of such an enterprise in philosophy in principle. "There is little excuse for leaving the graphs of one's meandering on paper," to speak with a profound expert on philosophical style and method.[41]

3. The Symbolization of "Ought"

If this were the whole story, Hall's account would not be essentially different from other analytic accounts of goodness, such as Garnett's. But Hall goes a step further, and it is this that makes his procedure so serious. He not only uses his formula as a map for the jungle, but he also uses it for the construction of cartographic instruments. He pretends to build a symbolism on it. He uses analytic concepts to produce synthetic formulations. To try to understand phenomenal reality with vague philosophical concepts is one thing; to put these concepts into symbolic form is another. If vague concepts are incapable of mapping the earth, how will they be able to map the stars?

Since, says Hall, the nature of value shines through the structure of normative sentences, as that of facts through that of declarative sentences, all that is necessary to devise a symbolism for value sentences is to replace the parenthesis in the expression "$A(a)$" which represents "*a* exemplifies *A*" by brackets "$A\{a\}$" and we have a notation for value sentences, "*a* ought to exemplify *A*."[42] This new no-

tation, which, according to Hall, is in some respects much better and in some respects much worse than other models,[43] has been amended in subsequent writings, especially as a result of a discussion with E. M. Adams. Amendments in two respects are designed to show up "the fundamental semantical embedment [*sic*] of declaratives in normatives," namely, the forms "*B*(*a*) } *A*(*a*)," to be read "If *a* exemplifies *B*, then it ought to be the case that it exemplifies *A*"[44] and the forms "(∃x)A{x}" and {x}A[x]," to be read respectively, "Something ought to exemplify A" and "There ought to be something to exemplify A." These forms, invented by Adams, were used to argue against Hall's parallelism between fact and value, the very basis of Hall's argument, and were accepted by Hall.[45]

In relation to the second symbolism, the practical problem arises by which we shall now test both Hall's and my own theory, and then discuss the fundamental question of the legitimacy of symbolism in axiological theory.

The problem is that of the notational rendering of the two propositions: "There is an *a* that ought to exemplify *A*" and "There ought to be an *a* that exemplifies *A*." Oughting-to-be, says Adams, is not oughting-to-exemplify.[46]

> Now 'There ought to be something to exemplify *A*' is quite different from 'something ought to exemplify *A*.' The latter may be symbolized by '(∃x)A{x},' combining a familiar notation with Hall's notation for normatives, and this gives us only a generalized form of *A*{*a*} without any particular significance for our purpose. But the former, 'There ought to be something to exemplify *A*,' is a different matter. Again drawing on conventional notions, Hall's suggestion for normatives, and improvising to a certain extent, this might be symbolized by '(∃x)A[*x*]' and read 'there ought to be something that would exemplify *A*.' This seems to be a basic kind of normative. It is not only not reducible to either '*A*{*a*}' or '(∃x)A{*x*}'; it is not entailed by either and it does not entail either of them. 'Something ought to exemplify *A* does not entail 'there ought to be something that would exemplify *A*,' for if the something that ought to exemplify *A* did not exist it might not be the case that *A* ought to be exemplified at all. And neither does 'there ought to be something that would exemplify *A*' entail 'there is something that ought to exemplify *A*.' It might be *there ought to be a man who would marry Jane and yet not there is a man who ought to marry Jane*.[47]

Thus, Adams discovers a new kind of normative not covered by Hall.

> The ought-to-be or the oughting-to-exist of a particular seems to be a basic kind of normative that we do manage to assert in ordinary language, but cannot be asserted in Hall's suggested ideal language with '*A*{*a*}' as the standard normative form. His not recognizing this seems to have a significant bearing upon his conclusions concerning the nature of ought and, since he identifies the two, the nature of value.

> There isn't the same difficulty about fact. While what is said in the form of '(∃x)A[*x*]' cannot be said in the form of 'A{a},' I see no difficulty in saying anything that is sayable in the form '(∃x)A[*x*]' in the form of '*A*(*a*).' So an ideal language could conceivably get along with the fact-forms of '*A*(*a*)' and '*A*(*a*, *b*),' but not with the ought-forms of '*A*{*a*},' and '*A*{*a*, *b*}.' This argues against [Hall's] theory of parallelism between fact and value and his contention that every value, in a sense, contains a corresponding fact, and explicitly against the contention that the nature of value is shown by the form '*A*{*a*}' or '*A*{*a*, *b*}.'[48]

This conclusion pulls the rug from under Hall's entire theory. Hall, far from minding, lies down beside it. He not only concedes that Adams is right but turns the other cheek, showing that the symbolism does not even adequately represent the form that Adams accepts, which is, "There is an *a* which ought..."

> Just how we should handle existential operators in a normative logic and remain faithful (by and large) to ordinary speech is a puzzle—though not such an absolutely baffling one that I would advocate the complete abandonment of clarification *via* model languages.[49]

Hall then tries various possibilities of accounting symbolically for Adams's distinction, again following the rabbit's path, and coming out nowhere.

The definite problem here is to account for two verbal axiological expressions. A symbolism has been proposed, and it fails to account for the expressions. Formal axiology also proposes a symbolism, so here is a perfect test case for the comparison of two axiological symbolisms. Let us first see how simply and elegantly the notation of formal axiology solves the problem, then examine the reason why Hall's does not.

In the notation of formal axiology,[50] "There ought to be a man who would marry Jane" is symbolized by "I ← C," whereas "There is a man who ought to marry Jane" is "I → C." As in Table 4, p. 176, of *The Structure of Value*, the first assumes the underlying judgment "There is no man to marry Jane," E – C, and the second: "There is a man to marry Jane," I – C. A second meaning for "There ought to be a man to marry Jane," is based on the underlying logical judgment O – C, "There is a man who does not marry Jane." This possibility escaped both Hall and Adams.

The reason that Hall's notation is not capable of solving the problem is that he has not derived the symbolism from the primary qualities of the phenomenon but has adapted a symbolism to the secondary qualities of the phenomenon. He has not penetrated to the nature of the phenomenon, to its *axiometric notion*, and from it derived a notation, but has devised an "arbitrary notation"[51] in terms of which he tries to understand the phenomenon. This means that for each new case a new symbolism will have to be developed, for

there is no one axiom based on the nature of the phenomenon itself, from which the symbolism is derived.

Penetration into the phenomenon would have shown, in the present case, that the distinction made by Adams is *not so much a question of the existential operator as of "ought" itself.* The nature of "ought," not that of the existential operator, is what distinguishes the two propositions. The "ought" in the first proposition is axiologically synthetic; in the second it is axiologically analytic. The difference between the two was defined by the modality of the logical judgments underlying the axiological "ought"-proposition. Synthetic "ought"-propositions, I said, assume that what ought to be is not the case; the modality of the underlying ought judgment is negatory. Analytic "ought"-propositions assume that what ought to be is the case; the modality of the underlying logical judgment is assertory.[52]

The present case is a perfect example of such "ought"-propositions and confirms the soundness of my interpretation. Both propositions are given by the form "Someone ought to marry Jane." This is a logical "I" proposition with an axiological copula and a non-axiological predicate, a mixed axiological proposition. The general form is "I $_{\text{arrow}}$ C" where the nature of the arrow is determined by the analyticity, syntheticity, or hypotheticity of "ought." In the case of, "There ought to be a man who would marry Jane," Hall himself gives the rendering of formal axiology: "There ought to be a man [but I suspect there is none] to marry Jane."[53] The notational form is "I ← C;" the proposition has the axiological truth-value of *indeterminacy*;[54] and the underlying judgment is E – C.

Hall formulates the second case as "There is a man [you know who] who ought to marry Jane." This is the same as my own rendering as "There ought to be a man to marry Jane [and there is one!]" or "*a* man [you know who!] ought to marry Jane." Thus, this axiological proposition confirms what is assumed to be the case; its form is "I → C;" its axioxogical value is true;[55] and the underlying judgment is I – C.

In the case overlooked by both Adams and Hall, Hall's rendering would be "There ought to be a man [you know who!] to marry Jane [but I suspect he won't]." Here the form is I ← C, with the underlying judgment being O – C rather than E – C. This last form shows especially clearly that the burden of the problem is not so much on the existential quantifier as on "ought" itself; it cannot be rendered by any of the forms discussed by Hall and Adams. The existential quantifier, in all three forms, does not so much belong to the "ought"-proposition as to the underlying judgments. This, then, is my solution to Hall's "puzzle" about "how we should handle existential operators in a normative logic and remain faithful to ordinary speech."

The distinction between "ought to exist" and "ought to exemplify" has been discussed previously. The underlying judgments of the mixed axiological proposition "*x* ought to exist" are: "*x* exists," "*x* does not exist," and "*x*

may or may not exist,"[56] depending on whether the proposition is axiologically analytic, synthetic, or hypothetical. Hall's four puzzling propositions:

> 'Whether or not it is true that John still loves her it certainly would be good were it true.' 'It ought to be the case that every good man is happy; unfortunately it is false.' "'There are no spies among out top scientists' happens to be false; it ought to have been true." and 'It ought to be the case that every suspect is arrested; I am glad to report that this is the case.'[57]

are examples of respectively hypothetical, synthetic, and analytic "ought propositions." Their forms are: A ↔ C, A ← C, E ← C, and A → C. Compare this simple notation and its meaning in formal axiology with the somewhat tortured, or as he says, "intolerable" suggestions of Hall.

The reason for the different power of the two notations, the "arbitrary" one of Hall, and the systematic one of formal axiology, is that formal axiology was developed on the basis of an axiomatic notion of the phenomenon, but Hall's was not. Formal axiology is thus a consistent theory, deduced from one axiom that is defined with precision, in logical detail, and on the basis of the phenomenon itself. My symbols "I ← C" and "I → C" are not arbitrary, but represent precisely defined relations within a synthetic system. In this system, based on the definition of "good" rather than "ought," "ought" itself appears as a precise relation—that between non-fulfillment and the fulfillment of a concept, and the various modes of oughting are exactly defined. No other considerations than those defined enter into the problem. In particular, my interpretation makes it clear that Hall's discussion of the nature of the existential quantifier is irrelevant to the problem as long as it is based on arbitrary symbols rather than on phenomenal insight, for such symbols can never render the modal difference between proposition and judgment that essentially characterizes every "ought"-proposition.

Adams's guess that a difference obtains between oughting-to-be and oughting-to-exemplify, while true, has nothing to do with the present problem, that of rendering the difference between the men to marry Jane. It belongs to an entirely different circle of problems, as discussed in the preceding section. As clarified there, the difference between oughting to be and oughting to exemplify is that between a thing's not possessing any properties at all, and its not possessing the properties of a certain class. In the first case, the thing was worse than one that existed and at least had some properties ("it is better for *X* to exist than not to exist" or "*x* ought to exist"). In the second case, the thing is not a member of a particular class, but of another class, and hence ought to exemplify the properties of its own class rather than the other. But it ought to do this only if its own class has more properties to exemplify than the first. If this is not the case, the thing ought not to exemplify the prop-

erties of its own class, but, analytically, the first. All this derives from the definition of "ought" and its positive and negative senses.[58]

I am now ready to discuss the question of symbolization in general and in ethical theory in particular. We have seen that systematic import based on synthetic concepts, legitimate symbolization, means greater empirical efficiency, namely, systemic-empirical import. Illegitimate symbolization is merely empirical import based on analytic concepts. From this point of view, formal axiology has just passed a strenuous test, solving a problem that illegitimate symbolization could not pass. Formal axiology not only solves this problem, but, as a glance at Table 4, p. 176 of *The Structure of Value* shows, it gives the entire matrix within which the problem must be examined, and it specifies its interrelationship to numerous similar problems that neither Adams nor Hall discussed. All this shows much more than a mere difference between particular theories. It demonstrates a fundamental difference in axiological thinking.

Let us now delve to the bottom of this difference in symbolization. We shall find a striking confirmation of my thesis that synthetic concepts give empirical efficiency and analytic do not. The example before us is so striking because of the extreme closeness of Hall's and axiology's formula for goodness. Yet, his is based on analytic concepts and mine on synthetic, his on material and mine on formal concepts. This difference is what gives the two symbolizations their different power.

It is astonishing that so seemingly logical a notion as that of exemplification would be so vague when put in analytic epistemological form. But again, as in *Modern Science and Human Values*, we see Hall retreat before the gap, so narrow and yet so deep, between the two kinds of thinking. As in the historical study, he said that "as a historian I must refrain,"[59] so he now refrains even in his analytic study and asks "the reader to be indulgent as to specific formulations."[60] Again, he sees the issue, but he does not pursue it persistently enough. As he says in the historical study, a Galilean reformation of value theory is needed; and, although he analyzes in detail the Galilean procedure in science, he does not draw the consequences for value theory. Here he says,

> when we utter a value predicative sentence we are saying something very complex in what appears to be a simple sentence, something whose analysis requires a careful consideration of the total content and an expansion of the analyzed sentence into a number of sentences.[61]

Yet, he does not give this pattern of sentences that a value proposition presents. The reason is that Hall made the wrong choice as to his premise. He chose "ought" rather than "good" and thus tainted with the corruption of "ought" the correct rendering of his formulas for "*a* is good" and "*a* is good."

This, together with the analytic rather than synthetic, material rather than formal, understanding of exemplification vitiates his tremendous efforts. My comparison between Hall and Tycho Brahe thus gets a confirmation even on the side of value theory itself. Tycho Brahe came extremely close to the Keplerian notion and had all the empirical material at his fingertips, but he did not go the last mile of synthetic imagination. He was, said Goethe, one of those minds

> who, so to speak, feel themselves at odds with nature and therefore love the complicated paradox more than the simple truth; and they enjoy error because it gives them an opportunity to exhibit their acumen. He, however, who recognizes the true seems to honor God and nature, but not himself; and of this kind was Kepler. [62]

Again, only one step is needed to convert Hall's guesses into scientific axiology: taking the term "exemplification" logically seriously—"For *a* to exemplify *X* means for *a* to be a member of the class of *X*."[63] Once this is done all the rest follows, the connection with Moore's "two different propositions [which] are both true of "goodness" becomes clear, and the theory of axiology becomes an original link in the historical course of moral philosophy rather than a series of *ad hoc* additions.

Thus, no matter how close analytic thinking gets to synthetic thinking, the gap is still infinite and can only be closed by a leap. No matter how close, analytic thinking can never succeed in formulating a logical system. A miss here is always as big as a mile. No matter how "logical" such formulations, unless they are truly logical, that is synthetic and systematic, they must remain arbitrary and insufficient. A symbolism proposed on an analytic basis, then, is no legitimate logical instrument. Rather, the proposal of a symbolism on the basis of vague common sense concepts is the very core of what Hall himself characterized as pre-scientific or, after the creation of the scientific method, pseudoscientific.

To propose such a symbolism is not a trivial matter but a fundamental mistake in axiological thinking. It is as illegitimate as were, from the modern point of view, the alchemical attempts at making gold. They too were a groping from case to case on the basis of everyday language and common sense observations. Since this procedure of pseudo-symbolism is widely used in moral philosophy today, I must discuss it in more detail. Hall's procedure is only one example of a wide practice.

4. Analytic Shorthand and Synthetic Symbolism

Hall's fundamental thesis is the separation of fact and value and the manifestation of the structure of fact and value, respectively, in the structure of de-

clarative and normative sentences. This means that reality, either fact or value, appears in the structure of everyday language and its analytic concepts. But, as we have seen, this is not the case. The reality corresponding to analytic concepts is not at all that of fact; it is that of a distorted mirage of the world. It is the world of sensible facts, and these facts vary with the conceptual structure of the language. True scientific fact only appears as concomitant of synthetic systems. Thus, to say the least, the structure of fact and its relation to language is more complex than Hall assumes. But then also the relation between value and language must be more complex, and there must be a difference between value as appearing in the structure of analytic versus synthetic language.

There are at least two kinds of fact and two kinds of value, those belonging to and arising from analytic language, like "John is falling downstairs" and "John is good," and those belonging to and arising from synthetic language, such as "$a = \frac{1}{2}gt^2$" which is the formula in mechanics that John exemplifies when falling downstairs, and "'good' = $(\psi)\psi\omega\phi$" which is the formula of formal axiology that he exemplifies in being good, namely, having all the properties contained in his self-concept. Obviously, the formal kinds of fact and value cannot appear in ordinary discourse.

By his fundamental assumption, Hall cuts himself off from a systematic understanding of value reality and limits himself to common sense secondary value phenomena. Yet, on the basis of this analytic kind of understanding, he proposes a symbolism. Let us now examine the nature of such a symbolism. Obviously, it does nor arise, as did Galileo's, out of insight into the phenomenon; for Hall is not concerned with the phenomenon; he is concerned with what people say about it in ordinary value discourse. This resembles the kind of Wittgensteinian procedure that Bertrand Russell characterized as: finding out "what silly people mean when they say silly things." This is not exactly Hall's procedure, but his is not too far from the Wittgensteinian.

Hall presupposes that certain statements that people make are value statements, and hence that the structure of such statements is relevant to "the structure of value." He thus takes the ordinary language of ordinary people as his philosophical guide, rather than penetrating himself to the nature of value, discovering a structure in it, applying this structure to what people say, and then acting as their guide rather than allowing them to guide him. Instead of asking himself, in all seriousness, "What Is Value?" he asks himself, "What Is Being Said About Value?" His procedure is precisely the same as the one he characterizes as alchemical: he observes the secondary qualities of phenomena as if they were primary; and he draws from them all kinds of conclusions, as if they were conclusions about the phenomenon rather than about how the phenomenon appears to, and within, the world of experience. He even goes so far as to suggest a symbolism for these appearances. Let us see what this procedure would mean historically.

It would mean that Galileo would have attempted to "get at"[64] the nature of motion through the structure of motion-sentences. He would have had to collect samples of motion-sentences uttered by people in, and about, motion, and to analyze their structure. For, according to Aristotle, the motion of people is just as relevant to the nature of motion as that of, say, stones. Instead, therefore, of taking the hard road and trying to listen to the language of stones—as he did—Galileo could have taken an easier road and listened to the language of people. There was no more nor less reason for him to listen to the language of stones rather than that of people than there is for axiologists to listen to the language of people rather than that of stones. Both people and stones move, and both people and stones have value—especially "precious stones." It is, therefore, not obvious that the value language of people is more revealing of the nature of value than that of stones. But it is easier to listen to.

Suppose that Galileo, after listening to the motion-sentences of people, had analyzed the structure of these sentences and had proposed a symbolism parallel to that of Aristotle's logic; and instead of writing "S is P" he would have written, whenever it was a question of motion, "S is K," introducing thus the kinetic predicate K; so "S is P" could represent, for example, "Socrates is a man" and "S is K" represent "Socrates is a biped." He could have proposed this notation as a "programme" for the solution of the problem of motion and drawn all kinds of consequences, for example, the parallelism between *Barbara* and *K-Barbara*, *Celarent* and *K-Celarent*, *Darii* and *K-Darii.* To elaborate, he could have observed that Saint Barbara is the patron saint of artillerymen who are continuously on the move and hurl projectiles, that "celer" means "swift," that "celarent" is the common usage of the contrary-to-fact conditional "celerarent," which means a motion so swift that it does not exist, hence is invisible, hence is the swiftest possible. According to Herodotus, Darii's chariot was the swiftest ever, which, he could conclude, makes it obvious that K-Barbara, K-Celarent, and K-Darii are valid motions of the first K-figure, and so on.

Such alchemical procedure,[65] based firmly on common sense and ordinary language, would not have led to the systems of Newton and Einstein. It would not have answered the question, "What is Motion?"; needed was a system that completely disregarded common sense and was based on new insight into the phenomenon itself—as Hall makes so crystal-clear in *Modern Science and Human Values.*

Suppose, then, that Hall, in his better judgment, is right; and value is the phenomenon to be investigated by value theory, as motion is to be investigated by mechanics. Then a procedure such as the above would be no more significant in value theory than it would have been in mechanics. Yet, it is precisely Hall's procedure. In modern logical notation, "$A(a)$" represents "*a* exemplifies *A*." Hall replaces "( )" by "{ }" and proposes the new notation $A\{a\}$, "*a* ought to exemplify *A*," as a significant contribution to the under-

standing of the *nature* of "ought." Quite seriously, discussions arose as to the merits and demerits of this symbolism, under titles such as "The Nature of Ought";[66] and actual axiological problems were tacked by it, as we have seen.

Yet, the underlying theory lacks precision of thought. Its author is admittedly in the dark about the nature of value, and perhaps even about the nature of exemplification, which he discusses epistemologically rather than logically.[67] Thus, his substitution of "{ } for "( )" in the formula of exemplification cannot possibly mean anything precise either. It is based on a hunch—that the structure of value appears in structure of value-sentences that "par allel" fact sentences.

This procedure has no greater justification than that of our syllogistic Galileo, based on the hunch that the structure of motion appears in structure of motion-sentences and that the structure of such sentences is "parallel" to that of non-motion sentences, hence his substitution of "K" for "P." In both cases, the precision instrument of logic is used on the basis of a hunch, fortified by a metaphor—that of "parallelism"; but such a use of a precision instrument can be hardly more than a pun. Using such an instrument on so vague a basis is certainly contrary to its nature. It is an illegitimate use of symbolism.

This is much more serious than it might appear to be. Far from being "valuable," as Hall thinks, such "arbitrary symbolism"[68] is, on the contrary, damaging to the cause of exact knowledge. For it pretends to be what it is not, namely, a precision instrument. It conceals the nature of a true precision instrument: its exclusive employment in the service of synthetic concepts. In the degree that an arbitrary symbolism, based on analytic concepts, is being taken seriously, the vision for true precision instruments is being clouded, and the alchemical nature of the procedure is covered up. We have, then, here a fundamental lack of understanding of the enterprise of knowledge itself.

This lack lies in the assumption that we can symbolize something that we do not know. The legitimate procedure must be based on the contrary assumption, that we cannot symbolize what we do not know. Whereof we cannot speak, thereof we must—in symbols—be silent. The reason is simply that a symbolism cannot say more than what has been put into it. If we put nothing significant into it, it can give nothing significant back and only idle like a motor that is going nowhere. Significant insight must be formal and synthetic insight. Analytic "insight" is formally without value. And any symbolism based on it is at best shorthand. Hall's substitution of curled brackets for parentheses is not logic but shorthand. Such shorthand is no more significant for the nature of value than the signs of the Zodiac are for the stars. They are as far from truly formal axiology as astrology is from astronomy.

That all this, so obvious in natural science, is so obscure in moral and social science, is astonishing. Such pseudo-theoretical exercises are detected in their true significance, not by moral or social, but by mathematical and nat-

ural scientists, who are trained in genuine formal methods and their applications. Consider the following criticism of a well-known sociological theory by E. T. Bell, keeping in mind that what he says of the use of "mathematics" in this social theory also applies to the use of "logic" in present-day axiology.

> There is no more pathetic misapprehension of the nature and function of mathematics than the trite cliché that mathematics is a shorthand....Mere symbolization of any discipline is not even a respectable parody of mathematics....The S-theory has yet to take its first step toward generative mathematical symbolism....No reckless abuse of the mathematical vocabulary can [of itself] transform a theory not yet mathematical into anything more substantially mathematical than a feeble mathematical pun....There is no mathematics in the book.[69]

In all cases, genuine methods are based on an original insight, formal or synthetic insight into the phenomenon itself. Only when such an insight has been reached can a symbolism help us and indeed give us wings. Without such previous insight it is as harmful, as with it, it is helpful. Without formal insight, our wings are feathers, and the axiologist is an Icarus, certain to be burned by Plato's sun. With formal insight, our wings are powerful jets, and the axiologist a Lindbergh covering unknown spaces.

An analytic symbolism such as Hall's or Adams's therefore cannot succeed; nor will any other endeavors of symbolic manipulations where insight into the phenomenon is admittedly missing. This rather severe conclusion, which is obvious on the basis of our distinction between analytic and synthetic knowledge, will now be illustrated, first by a contemporary, then by an actual—not an imaginary—historical example.

At present we know nothing about flying saucers. Suppose we assume that existing language about flying saucers would reveal their nature. We would then assemble all the sentences that have been uttered about flying saucers, distill from them their logical structure, express this structure in some new symbols, and operate with these symbols as if we were operating with the structure of the nature of flying saucers. Obviously, we would not be taken seriously.

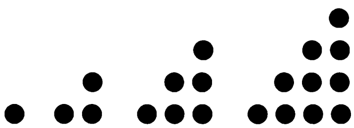
The same procedure when applied to value, of which we know nothing either, is regarded as plausible.

Let us then go a step further. You made a mistake, we may be told. Flying saucers are of a very intricate structure; it cannot be discovered in the everyday language of ordinary discourse, but it can be expressed in mathematical equations. Once this is done, you will know what flying saucers are. This, of course, is a great advance; but it does not get us any further along because it puts the cart before the horse. No doubt, the nature of flying saucers will be revealed by the structure of the equations that account for them. We can thus,

quite plausibly, define a flying saucer as that which makes a legitimate flying-saucer equation legitimate. But will the use of semantical rules in the ideal language of flying saucers—say, applied mathematics—help us to gain an insight into flying saucers? Hall thinks that in the parallel case of value "With many reservations, ...to some degree it can."[70] Obviously, however, it cannot. For how would I know that a certain structure, say, a certain set of differential equations, refers to flying saucers if I do not know what flying saucers are? I must first know what I am talking about before I can talk about it meaningfully, let alone in a technical way.

It cannot be different with value. First, I must know what value is before I talk about it, let alone in a technical language. How would I know that a certain structure of sentences—say the normative—refers to value if I do not know what values are? Assuming that the structure of value shines through the structure of certain sentences is neither more nor less justified than assuming that the structure of flying saucers shines through the structure of certain sets of differential equations.

Now an actual historical example will be given. Plato knew very little about the constitution of matter. However, the Pythagoreans had shown that the triangular numbers 1, 3, 6, 10, 15, 21, and so on, can be represented in the forms of triangles, as follows:



These numbers have very peculiar properties, the Pythagoreans noted, especially the fourth of them. *Ten* is not only a triangle, but also the sum of the preceding triangular numbers. Therefore, it is the sacred *tetractuis*, the holy fourth triangular number, in which all things are contained. Obviously, therefore, it is the archetypal pattern of the universe. From it, and from the triangular series in general, the four elements, fire, air, earth, and water can be generated and represented in terms of the then known four regular solids, fire being the tetrahedron, air the octahedron, earth the hexahedron (or cube), and water the icosahedron. And since "the world must be solid," we read in Plato's *Timaeus*, it is a matter of common sense, Plato believed, that the structure of the universe is revealed in the structure of the triangular numbers.[71] Plato knew of no good reason why this should not be so, for he knew as little about the structure of triangular numbers as about the constitution of matter; and anything can be said about what we do not know, especially something about which we know equally little. By Plato's time the fifth solid, the dodecahedron, had been discovered. Rather than spoil the fourfold harmony of the elements, Plato had he Demiurge "use it to embroider the heavens with constel-

lations."[72] The fifth solid, rather than being another material element, became the "quintessence," the "fifth essence," regulating the whole. Johannes Kepler made impressive use of all this, having the dodecahedron symbolize the twelve signs of the Zodiac, and thus the universe.

Plato's use of numbers is an exact analog of Hall's procedure. As much and as little reason exists for Hall's belief in the essential normativity of value and its structure shining through the structure of normative sentences, as for Plato's belief in the "essential triangularity" of matter and its structure shining through the structure of triangular numbers. Indeed, Hall's guess would be an ingenious one if it had as much plausibility as Plato's. Following up the Pythagorean/Platonic clues, Kepler detected the first and second laws of planetary orbits. He did so, it is true, on the basis of Tycho Brahe's painstaking empirical materials; this phenomenal basis made him successful where Plato and other numerologists, those who used numbers without empirical basis, had failed. From this we may conclude that a similar phenomenal basis may give to the endeavors of our modern logicologists, those who use logic without empirical basis, valuational relevance. Phenomena are often not seen except by those who look for them; and only those can look efficiently who have the corresponding theoretical framework.

Although the phenomena of the moral life are all around us, lacking a comprehensive theoretical framework, we see only snatches; and our ethical treatises, instead of giving us the moral drama of the age are full of meaningless little anecdotes and inane examples of people using imperatives, normatives, and the like, that are either trite, like "Be charitable," or trivial, like "Use the starting handle." They are far from being even Keplerian. And Kepler's discoveries became significant only after being combined with the minute empirical investigations of Galileo within the empirico-theoretical system of Sir Isaac Newton. There is, thus, a long way to go before logicological or logological valuational efforts become morally relevant, if ever they will. Most of numerology, mathematical symbolism without phenomenal basis, remained sterile and without significance for the development of natural science. Why should it be different with logicology—logical symbolism with phenomenal basis—in the development of the science of value?

The difference between numerology or logicology and genuine system building is that the genuine thing includes a phenomenal basis that is systematically rendered by symbols; but in numerology both a phenomenal basis and its symbolic rendering in a consistent theory are missing. Its symbols are nothing but symbols, snatches of notation outside of any systematic matrix, wisps of haze offered as pieces of cloth. Fundamental problems in moral philosophy can no more be solved by mere notation than very fundamental problems in natural philosophy. The alchemists had no precedent and had to feel their way, but we do have a precedent, namely the alchemists, negatively, and their scientific successors, positively. As it is, moral philosophy follows

methodologically the procedures of alchemists and astrologists; and our logological symbols have no more relevance for value than alchemical symbols had for matter, or astrological ones for the stars.

It took Galileo and Antoine Lavoisier to overcome this kind of thinking. They did so by finding in the phenomena themselves the primary qualities that made them accessible to formal notation. Before them, mathematics was used at random; and alchemistic and astrological procedure can be defined as *the random use of mathematics applied to analytic concepts*. Galileo and Lavoisier made clear that the precision tool of mathematics can be used legitimately only where the subject matter has been prepared for its use. Alchemists and astrologists used numbers prematurely. Such premature use of a precision instrument is typical of pseudo-science; it resembles the use of the surgical knife without a knowledge of anatomy. It is methodological quackery—only that the body suffering from it today is the body politic rather than the physical body, as it was in Paracelsus's time. Formalism, then, is nothing to play with; it is a serious matter. To use it without proper preparation of the subject matter is no less irresponsible in moral philosophy than in natural philosophy. We are in the age not only of moral alchemists, but also of moral barbers.

No use of mathematics is legitimate other than the application to primary properties. Where the phenomena in question are not "resolved"—in the Galilean sense—into such properties, the use of mathematics is an idle game. Numbers cannot be used legitimately without having first penetrated to the essence of that which numbers are supposed to represent. No isomorphism between phenomena and symbolism can exist unless there is phenomenal *morphé*.

What is true for natural philosophy must be true for moral philosophy. Formal notations, whether of numerical or of logical symbols, may be applied to value only if the phenomenon of value itself has been resolved into primary properties and defined in formal terms. Such definition, such penetration to the very marrow of the phenomenon, ought to be the true labor of the axiologist, as it has always been that of the physicist and chemist. Without such phenomenal penetration, any use of formal notation is an attempt at reaping the fruit without having sowed, a fundamentally unsound and illegitimate procedure. The conclusion is inevitable that any use of formal notation with reference to value is an idle and fruitless game, unless we know what value is in the sense of having broken down the phenomenon to its primary properties that are accessible to such notation.

Only when a definition of the value phenomenon itself has been offered in logical terms can logical notation be used successfully. It can be used only within a total formal theory of value, and not without or outside of it. The logical model, the "miniature logic" that accounts for value, must be built first, just as Galileo built the geometrical model, the "miniature geometry"

that accounts for motion.[73] This kind of logical model formal axiology tries to build.

The present situation in moral philosophy is precisely analogous to the corresponding situation in natural philosophy with respect to *the symbolic nature of value*. Many critics of the algorithmic games of pseudo-philosophers of nature did not, like Galileo, know the correct answer; but they divined it, as did Francis Bacon. Bacon made exactly the same points against his fellow naturalists' attempt to jump the empirical gun that were made above with respect to values.

The procedure of applying logical symbols to value has value for valuation only if valuation is a matter of logic. Whether and how it is should be the fundamental question to be examined by axiologists *before* venturing to propose value symbolism. Bacon reacted against the premature use of precision instruments, be it Aristotelian logic, Platonic mathematics, or any separation of theory and practice.[74] Bacon never understood the difference between the illegitimate use of mathematics and its legitimate use in the hands of Copernicus and Galileo. Neither of them was like the empiricist ant or the dogmatic spider; but they were, especially Galileo, like the industrious and form-creating bee. Bacon's characterization of the situation in the natural philosophy of his time applies quite accurately to our present-day situation in moral philosophy. Those who have handled axiology

> have been either men of experiment or men of dogmas. The men of experiment are like the ant: they only collect and use; the reasoners resemble spiders, who make cobwebs out of their own substance. But the bee takes a middle course; it gathers its material from the flowers of the garden and of the field, but transforms and digests it by a power of its own. Not unlike this is the true business of philosophy; for it neither relies solely or chiefly on the powers of the mind, nor does it take the matter which it gathers from natural history and mechanical experiments and lay it up in the memory whole, as it finds it: but lays it up in the understanding altered and digested. Therefore, from a closer and purer league between these two faculties, the experimental and the rational, (such as has never yet been made) much may be hoped. [75]

No such "league" exists yet in moral philosophy, both because the empirical material is not recognized, and the theoretical framework is not created. Most present-day axiologists are either ants, or spiders, or both, jumping from pseudo-empirical materials like the popular vocabulary of the man in the street to pseudo-rational conclusions. This is precisely the contortion of "experience" and hence of thought of which Bacon speaks.

> Men of learning, but easy withal and idle, have taken for the construction or for the confirmation of their philosophy certain rumors and vague fames or airs of experience, and allowed to these the weight of lawful evidence. *And just as if some kingdom or state were to direct its counsels and affairs, not by letters and reports from ambassadors and trustworthy messengers, but by the gossip of the streets; such exactly is the system of management introduced into philosophy with relation to experience.* Nothing duly investigated, nothing verified, nothing counted, weighed, or measured, is found in [axiology]; and what in observation is loose and vague, is in information deceptive and treacherous.[76]

What is investigated, verified, counted, weighed, or measured is nothing relevant to the subject matter, value, or at least this relevance is not investigated. Thus,

> We have as yet no [moral] philosophy that is pure; all is tainted and corrupted: in Aristotle's school by logic; in Plato's by natural theology; in the second school of Platonists, such as Proclus and others, by mathematics, *which ought only to give definiteness to natural philosophy, not to generate or give it birth.* From a [moral] philosophy pure and unmixed, better things are to be expected. No one has yet been found so firm of mind and purpose as resolutely to compel himself to sweep away all theories and common notions, and to apply the understanding, thus made fair and even, to a fresh examination of particulars. Thus it happens that [moral] knowledge, as we have seen it, is a mere medley and ill-digested mass, made up of much credulity and much accident, and also of the childish notions which we at first imbibed.[77]

This kind of method led to the number games of Galileo's scholastic adversaries and to the concoctions of the hermetics.

We are in exactly the same danger of going astray in axiology in both of these directions. Being clear about the true direction is of fundamental importance: the substitution of synthetic for analytic, axiomatic for categorial concepts. Otherwise, we shall be unable to cut a swath through the jungle that is today's moral philosophy, swarming as it does with the ants of pseudo-scientific empiricists, from positivists to logicological symbolists, and with the spiders of dogmatism, from analytic "system" builders to theological moralists.

This chapter has tried to examine the illegitimacy of using formal methods without empirical, or with pseudo-empirical, content. Before turning next to the illegitimacy of using empirical methods without theoretical, or with pseudo-theoretical form, let us, by way of summary, remember Bacon's famous words on the middle axioms, which every axiologist ought to remember before flying off, even tentatively, into the stratosphere of symbolism.

> The understanding must not...be allowed to jump and fly from particulars to remote axioms and of almost the highest generality...and taking stand upon them as truths that cannot be shaken, proceed to prove and frame the middle axioms by reference to them; which has been the practice hitherto; the understanding being not only carried that way by natural impulse, but also by the use of syllogistic demonstration trained and inured to it. But then, and then only, may we hope well of the sciences, when in a just scale of ascent, and by successive steps not interrupted or broken, we rise from particulars to lesser axioms; and then to middle axioms, one above the other; and last of all to the most general. For the lowest axioms differ but slightly from bare experience while the highest and most general [which we now have] are notional and abstract and without solidity.[78]

As Goethe remarked, "It is the mistake of weak spirits to jump in reflection, from the singular right away to the universal."[79] In order to give our axioms solidity they must be synthetic rather than analytic, something which Bacon did not clearly see. To be synthetic they must be anchored deeply in the phenomenon, and this he clearly saw. Just as Bacon's contemporaries in natural philosophy tried to fly before they could walk, so our contemporaries in moral philosophy try to fly airplanes before solving the most elementary equations in aerodynamics. Their "understanding must not therefore be supplied with wings but rather hung with weights."[80] However, weights—and measures, and classifications, and other empirical paraphernalia—have their own governor in axiology. The expert axiologist must navigate between the two dangers of pseudo-logicism and pseudo-empiricism. To the second we shall now turn.

Ten

THE MEASUREMENT OF VALUE

A big danger to the analyst is this: to use his method where there is no synthesis. His labor is then truly a labor of Danaids...All his efforts become the more obstructive to him the more the number of his observations increases.[1] Goethe.

My dear sirs, what we want to know from you as ethical teachers, is not how people use a word; it is not even what kind of actions they approve, which the use of this word 'good' may certainly imply: what we want to know is simply what is *good....We do not care whether they call that thing which they mean 'horse' or 'table' or 'chair,' 'gut' or 'bon' or 'ἀγαθός,' we want to know what it is that they so call.*[2] G. E. Moore.

1. Analytic Reality and Synthetic Reality

A science of value has to deal with value. But value for such a science is not merely what is meant by value in ordinary life, the value phenomena. The value the science of value deals with is primarily that *concept* by which the value phenomena can be understood: it is "value" or Value rather than value —formal rather than material value. In the same way, in natural science, the kind of 'nature' that is dealt with is first of all that *concept* by which natural phenomena can be understood; it is "nature"—"energy," "mass," and so on, —not nature: it is formal rather than material nature.

The concepts which permit the *scientific* investigation of a field of experience are synthetic and axiomatic concepts, logically different from the analytic and categorial concepts of philosophy. While the first are constructions of the mind, the second are abstractions from sense reality; and "no matter how high they rise they always remain part of sense reality."[3] The *logical* difference between philosophy and science is manifested *practically* in the difference between a scientific and a philosophical world. While the Modern Age is characterized by natural *science*, with its technological creations and realizable dreams, such as interplanetary travel, the Middle Ages were characterized by natural *philosophy*, with its alchemistic and astrological ideas and its unrealizable dreams, such as the philosopher's stone and the fountain of youth.

The reason that the scientific dreams are realizable and the philosophical were not is that the objects of scientific dreams consist of primary qualities while those of philosophical dreams consist of secondary qualities. A field of experience cannot be intellectually apprehended before it is apprehended in its primary rather than its secondary nature, and only then is an experiential

field capable of practical transformation. The transition from a philosophical to a scientific age is a period where primary and secondary properties are not clearly distinguished, and *the method of measurement—the exclusive domain of primary properties—is applied to secondary properties*. The result of such confusion is hybrid thinking, neither science nor philosophy, like the cosmic system of Tycho Brahe and the theory of phlogiston in the history of natural science. In the field of value, we are now in such a transitional stage. We use the most modern scientific means in the service of the most obsolete political ideologies. We want to measure value, and do not yet understand the nature of the primary properties of value which alone constitute the guarantee for the legitimacy of such measurement. We apply methods of measurement to secondary properties of value and, as a result, obtain axiological hybrids, or hybrid axiologies. Since we do not know the correct method of valuational measurement, we mistakenly see in these hybrids legitimate creatures of axiology.

The present chapter proposes to investigate the conditions of value measurements, and to distinguish between the characteristics of *legitimate and illegitimate measurement of value.*

Just as the "empirical" nature of fact is different when seen in the light of natural science and when seen in the light of natural philosophy, so the "empirical" nature of value is different seen in the light of value science and seen in the light of value philosophy. The synthetic concepts of value science create a new world of value phenomena that has little to do with those produced by the analytic concepts of value philosophy, except that they refer to the same ontological substratum. People threw things after Galileo as much as before him, but after him they knew they described parabolas. As a result, new and different things were thrown, including bombs. In valuation, the science of value will lead to new values, which may counterbalance the new things thrown.

Recognizing the distinction between analytic and synthetic, philosophical and scientific, value reality is thus fundamentally important, and confusing the two is a fundamental error. Regarding the value reality of today as "scientific" is a fundamental mistake, the product of analytic concepts. To base such reality upon procedures of empirical science, such as measurements, statistics, and so on, is as fallacious as to build on it logical operations. If the second procedure is pseudo-logical or "logological," the first is pseudo-empirical or "empiro-logical." One is as harmful for true value insight as the other. Both pretend to be what they are not. Pseudo-empiricism, especially, pretends to be scientific and thus obscures, from the side of the empirical, the vision of a true science of value, as pseudo-logic does from the side of theory. In particular, it pretends to perform the central scientific activity, that of empirical measurement. Since measurement is the very heart of the scientific method and the very core of the relation between synthetic intension and extension, it is of paramount importance to be clear about the fact that one can

measure only empirical, not pseudo-empirical material, only synthetic, not analytic content, just as one can measure only with truly logical and not pseudo-logical concepts, with synthetic and not with analytic concepts.

2. Analytic and Synthetic Measurement of Value

Let us remember, then, how measurement was introduced into philosophy, what a revolution it wrought, and how it dethroned the authority of sensory abstraction and enthroned that of intellectual construction. The subjects of the new realm became the primary properties, hitherto completely unknown, and those of the old regime, the secondary properties, were chased into exile, to be left, henceforth, to the care of philosophers and everyday discourse.

Galileo understood perfectly well the nature of his new method. His new science was not dealing at all with the things or events of the ordinary sense world. The objects of the new science were constructs: formations for measurements, configurations of measurable qualities, and no others. He made clear the distinction between primary and secondary qualities, which determines the exact nature of measurement. This distinction arose at the same time, and in he same way, as that between synthetic and analytic concepts, only from the side of the subject matter rather than that of the theory of science. Not only is value the intensional analogue of number, but in applying value, axiology follows the exact method Galileo employed in applying numbers: it measures value.

Measurement is nothing but the application of the number series, in appropriate form, to a phenomenon. The main thing here is the condition "in appropriate form." Obviously, we cannot measure length by scales, weight by a ruler, or virtue by a thermometer (even though some emotivists come close to doing this). We cannot even measure a circumference by a measurer's rod; we have to use a tape. Each phenomenon must have the measuring instrument that fits its particular nature. But the nature of measuring itself is always the same: the application of the number series to the phenomenon. The inverse of this relation is called a *primary quality*: the capacity of a phenomenon to be measured. On this is based the operational definition of physical concepts, (but P. W. Bridgman fails to recognize the *constructive* nature of measurement).[4]

The problem of measuring the value of phenomena, then, is like any other problem of measuring: the problem is *not whether* to apply the number series *but how* to do it. The question is the standard of measurement and its dimension. What, asks the axiologist, is to the value of a thing as, say, the meter is to its length? What is contained in this standard, as the centimeter is contained in the meter? The answer in the light of my theory is as simple as it is complicated—indeed unsolvable—in any theory that uses analytic concepts.

Suppose that "value" is defined as "pleasure." What then would be the standard of pleasure? Jeremy Bentham,[5] Frances Hutcheson,[6] and others in the history of ethics have proposed calculi. They expressed their conviction that value is measurable. But their efforts were in vain and share with similar attempts in the history of natural science the typical features of applying analytic concepts synthetically: the vagueness of these concepts is not relieved but extended; and number, far from lifting the phenomenon into the sphere of precision, is dragged down into the sphere of vagueness. Mathematics thus becomes numerology. This confusion of synthetic precision with analytic vagueness produces the typical pseudo-scientific results the "theoretical" aspects of which were discussed in the preceding chapter. The "empirical" aspects of this will now be discussed. Historically, in alchemy and astrology, this procedure brought all the superstition, the scholastic bombast, and the tragic mal-direction of life that dominated the Middle Ages, and which was recognized as such only after the new science of synthetic concepts was created.

Today, not only axiological theory, but most of the rest of what used to be moral philosophy, especially most of social "science," have this pseudo-scientific cast. They use numbers in the service of analytic vagueness. Indeed, this pseudo-scientific confusion is the characteristic feature of present-day social disciplines. The catastrophic mismanagement of our social affairs is the necessary outcome. We are not only in the age of moral barbers but also of social barbers, and hence barbarism. Medieval barbers were, of course, barbarians, medically speaking.

Social science does not yet succeed in spuriously introducing number. It advances toward generalization "by words, in a lingo which expresses the simple facts by involved analytic concepts," preferably ending in "-tion." As Brand Blanshard put it,

> I am not sure that philosophers are worse sinners in this respect than sociologists; indeed I suspect the reverse. Here, at any rate, is an example of what a sociologist can achieve when warmed to his theme—in an article judged worthy of reprinting in a source-book of sociology: 'Social and political organizations tend to become accommodated to the spatial distribution of ecological organization resulting from the prevailing forms of transportation. The introduction of new forms of communication such as the railway, automobile, telegraph, radio, necessitates a reaccommodation of social organization to the new interpretation of spatial distance.' Of the thirteen different nouns in those two sentences, seven of them are -tion nouns, and of these one, 'organization' appears three times over. What is it that makes civilized men do these things? Often, I am sure, a sense that what they have to say is so commonplace that it must be dressed up for dignity's sake.[7]

Here we have the typical pseudo-scientific procedure that we also find in alchemy. "A specter haunts our culture," says Lionel Trilling.

> It is that people will eventually be unable to say, 'We fell in love and married,' let alone understand the language of *Romeo and Juliet* but will, as a matter of course, say, 'Their libidinal impulses being reciprocal, they integrated their individual erotic drives and brought them within the same frame of reference.'

Commenting on this passage, Brand Blanshard wrote:

> Our young people are allowed to commit mayhem on the language unwarned, and to grow up under the innocent impression that such behavior is somehow scholarly....Many of these young people carry no model in their minds by comparison with which they could stamp that sort of thing as barbarism.[8]

On this new barbarism, José Ortega y Gasset, discussing "The Barbarism of Specialization," says that what makes the specialist a barbarian is the authority with which he commits intellectual absurdities—precisely as the great prestidigitators of the middle ages.[9]

For axiological theory to follow the methods of today's social "science" because of its supposedly "empirical" character is jumping from the frying pan of methodological confusion into the fire. "It is highly significant," says Henry M. Pachter, "that magical conceptions, which we would not allow in physics of biology, still persist in the social and political sciences."[10] As Pitrim Sorokin puts it,

> The passion for quantifying all sorts of qualitative data has manifested itself in many fields: in measuring the intensities and qualities of beliefs, emotions, intelligence, ideologies, attitudes and public opinion; in the quantitative theories of 'factor-analysis'; in the construction of 'mathematical' models; and in exploring general methods for correctly translating nonmetric qualities into scaleable ones....*If the quantified qualities have units, they can be measured or scaled and the measurements expressed in numbers. If the scaled qualities do not have units, they cannot be adequately scaled and measured.* If, in spite of this, the 'unitless qualities' are quantified, the resultant measurements are bound to be fictitious rather than real, arbitrarily superimposed upon the phenomena rather than giving objective measurements of them....Where there are no units and numbers, all the formulae and equations are either void or represent a subjective ranking, weighing, and scoring by the devotees of a misplaced quantification.[11]

Sorokin's criticism is made from a viewpoint similar to the one he criticizes. His own theory uses analytic concepts, and he does not analyze the *logical* fallacy committed by modern "numerologists," their confusion of analytic and synthetic procedures. Still, his criticism is required reading for anyone who wants to abolish analytic pseudo-science to make room for genuine synthetic science in the social and moral disciplines.

Quantification in pseudo-science is misplaced for the same reason that we found logization to be misplaced: because the social scientists in question fail to do what Galileo did—to enter into the phenomena and to resolve them into their primary qualities. Rather, they leave the phenomena as they are, use their analytic everyday concepts, and apply mathematics not to their essence but to an arbitrary common denominator, usually arrived at by questionnaires. Just as Hall on the basis of the Wittgensteinian procedure tried to discover the "structure of value-sentences," so the empirical social scientists on the very same basis try to discover "values" by manipulating, statistically and in other "scientific" ways, materials that are scientifically defective. These materials have almost nothing to do with the subject of the investigation and are pseudo-materials, pseudo-empirical subject matter, that is passed around as if it were the real thing. It is again as if Galileo tried do discover the laws of motion by sending questionnaires to moving people about their sensations, then statistically "evaluated" them, and offered his results as the "laws of motion." This use of mathematical methods is, of course, as illegitimate as any other on analytic grounds.

We must recall what was said in the preceding chapter—that numerical procedures cannot be legitimately applied unless the phenomena are first broken down to their primary constituents, quantifiable units. Any other use of numbers is metaphorical only, numerology rather than mathematics; as Sorokin says,

> When the few allegedly scaleable areas of opinion-attitudes are carefully examined, one finds that their scaleability is due, not to objectively existing units of ranks in the phenomena studied, but to the fact that in their questionnaires the authors[12] had already arbitrarily arranged the scaleability of the answers. Their questions ask for not only positive or negative answers, but answers ranked in terms of 'very much,' 'some,' or 'little,' or in even greater detail. Having predetermined the answers by ranking in this way, the authors simply count the number of answers in each rank and thereby get their 'ranking' of 'scaleability' of various intensities of this or that opinion, belief, emotion, wish, or attitude. In the answers they get exactly those ranks, units, or intensities which they put into their questions. This is fictitious scaleability, created and superimposed upon the phenomena by the free act of the investigator.[13]

As an example of the measurement of intensity of fear, Sorokin mentions questionnaires asking soldiers how often they experienced under fire reactions such as "violent pounding of the heart," "feeling sick at the stomach," "cold sweat," "vomiting," "urinating in pants," and so on. He rightly objects that the frequency of occurrence of fear symptoms—"Often/ Sometimes/Once/Never" is not a measurement of fear intensities.

> From the fact that the common cold occurs much more frequently than cancer, it does not follow that the common cold is a more severe sickness than cancer. From the fact that only 9 per cent of soldiers 'urinate in pants,' while a larger per cent vomit in fear experience, it does not follow that either one of these phenomena is a more severe form of fear than the other. These considerations show that the authors' scale of fear symptoms is not a scale of the intensities of various manifestations of fear.[14]

The procedures in question are not "mathematical," even though they use numbers. A well-known survey, A. Kaplan's "Sociology Learns the Language of Mathematics," is both mis-titled and unwarrantably sanguine. J. R. Newman's mottoes attached to it are uniquely to the point: "'*Never too late to learn—With just enough learning, to misquote*'—Byron."[15]

Factor analysis in psychology is notorious for its use of pseudo-mathematics. As William H. Werkmeister indicates,

> 'Factors,' such as 'shyness,' 'emotionality,' 'masculinity,' 'alertness,' etc. are not *scientific*—synthetic—definers of personality 'dimensions' but vague analytic guesses put in the pseudo-mathematical form of 'variables.' Factorists have the habit of representing the individual 'factors' by symbolic letters. If these letters should be taken as more than convenient abbreviations, their use would be unwarranted.[16]

We find this kind of procedure not only in psychology, social psychology, sociology, and the like, but also in value theory. All kinds of "mathematical models," are being offered as analyses of valuations—usually based on the analytic concepts of "choice," "preference," and the like, without examination of the value nature of the concepts on which the whole discussion hinges. Using "scales" of answers—"7. I like it very much" "6. I like it quite a lot," down to "1. I dislike it very much"—any kind of material from "Nirvana" to "urinating in pants," is presented to the scale devised by the questioners. The answers are tabulated, correlated, and rotated according to the rules of statistics. Yet, all that the results can possibly show is the percentage of certain answers to certain questions. Whether and how these results are relevant to value or in general to the subject matter under investigations is a

matter of the definition of value, or of that subject matter; and such definition is usually avoided.

Let us examine Charles Morris's treatment of the entire literature of "value measurements." According to Morris,

> The term 'value' is one of the Great Words, and, like other such words ('science', 'religion', 'art', 'morality', philosophy'), its meaning is multiple and complex. It is not necessary for our present purposes to attempt to define it, in the strict sense of giving the sufficient and necessary conditions for the application of the term....The question is a problem in the general theory of value, and an adequate discussion of the issue would take us too far afield.[17]

It is possible that all value has to do with preference, says Morris.

> Preferential behavior would then define the value field, and the various employments of the term 'value' would be explicated not as referring to different entities (different 'values') but as delineating different aspects of the value field. To the extent that this could be done, axiology (the theory of value) would, as the science of preferential behavior, become part of the general science of behavior. Whether or not the theory of value can be so conceived is not under direct consideration in this study. But it is believed that the results of the investigation lend it support.[18]

In other words, we don't know what value is, but we proceed on the assumption that it is preferential behavior.

This procedure, and the accompanying apparatus of figures upon figures—to two and more decimals—has value for *valuation* only if valuation *is* a matter of preference, and this ought to be the fundamental question to be examined before a detailed study of preferences is made under the title of a study in values. This would involve discussing the naturalistic fallacy and why it may be committed, giving a proof that people always prefer what is better and never what is worse, and defining key concepts like "better" and "worse," in short, providing a sound foundation for the procedure proposed. Instead, all these questions of *value theory* are by-passed, and an investigation into preferences is launched as if it were one into values.

Again we have what we observed in the previous chapter: the use of a precision instrument on a subject not first "resolved"—in Galileo's sense—and examined with care and insight, the use of the surgical knife without a study of anatomy. Instead of discovering the primary qualities and converting the phenomenon into a subject of synthetic concepts, all that is being done is to break the *analytic* concepts down, more or less arbitrarily, into their equally analytic constituents. "Fear" is analyzed into ten symptoms, like "vio-

lent pounding of the heart," "vomiting," "losing control of the bowels," and "feeling of stiffness."[19] "Good life" is reduced to thirteen "ways of life," ranging from "preserve the best that man has attained," to "meditate on the inner life," "chance adventuresome deeds," and "obey the cosmic purposes."[20] Then, rather than sticking to these phenomena and continuing the process of analysis up to analytic *definition*, and thence to synthetic definition, as is the way of science, the process of analysis is stopped, and people are asked how they feel about it all.

The corresponding procedure in natural science would be this: instead of continuing the analysis of bodily symptoms, say, of "stomach disease," just make a list of symptoms, ask patients how they feel about them, tabulate, correlate, and rotate the answers, and call the result the "science of gastro-enterology." In this way, medical science would never have reached its present status of chemical precision but would have remained on the level of the medieval quack. It so happens that Guttman-Lazarsfeld's list of fear symptoms fits equally well those of stomach disease and could well represent a medieval barber's total knowledge of this disease. Medical science advanced through penetration by dedicated experimenters and thinkers into the phenomenon itself, rather than into people's ideas about it. The scientist cannot abdicate from the scientific enterprise—from the Galilean method of *intuition or resolution, demonstration, and experiment*: the method of penetrating into the phenomenon and finding the logical form of its primary elements, the purely formal deduction of consequences from it, and the verification of the results by experiment.[21]

There is no reason why knowledge of value should not follow this pattern of all cognitive precision. To leave the analysis of the phenomenon at its lowest point and throw it into the lap of people—in order to tabulate the things they say—is in moral philosophy as illegitimate as it would be, and was, in natural philosophy. "The gossip of the streets," to speak with Lord Chancellor Bacon, or "the silly things silly people say," to speak with Lord Russell, do not become scientific by being tabulated or put into the form of geometrical and other models—no matter how "scientific" such models may look. Morris's model of the "structure of values" looks suspiciously like that of a molecule![22] The form of science needs the content of science, like the shell of a snail needs the snail. To fill it with jellyfish will not do; or, to paraphrase both Kant and R. G. Collingwood, content without form is barbarism; form without content is dilettantish. (Collingwood actually wrote: "Subject without style is barbarism, style without subject dilettantism.")

The content of the science of value is value—and nothing else. It is neither emotions, attitudes, feelings, likings, or preferences; nor is it what people say about these. The phenomenon of value is what the axiologist must penetrate. The person who has penetrated it to its farthest depth so far is G. E. Moore. Let us see how the measurement of value appears in the light of the

theory deduced from Moore and compare it to a contemporary account, one of the most advanced available, Charles Morris's empirical study of the signification of the value term "good."[23] We shall see how close his analytic account approaches the synthetic—and yet what an abyss divides both.

3. Analytic "Value Measurement"

Measurement in formal axiology is measurement of meaning, understood synthetically as a definite logical relation, and not analytically. Rather, the analytic meaning is understood synthetically; the secondary properties are treated as primary ones and thus as subject to measurement by their own intensions. Morris sees this double aspect of meaning—the logical and the axiological—but he understands it analytically, his analytic expressions for the two aspects being "signification" and "significance." He tells us,

> The word 'meaning' is double-faced. If we ask what is the meaning of life, we may want a definition of the word 'life,' or we may be seeking wisdom for the conduct of life. Questions about meaning move back and forth ambiguously between the two poles of signification and significance, of sign and value. This ambiguity causes trouble, and contemporary thought has found it expedient to put asunder what the god of language has united. But ambiguities have their own merits, and this one is an invitation to explore the relation between signification and significance, which the existence of the ambiguity suggests.[24]

The terms "signification" and "significance" are analytic rather than synthetic, developed by categorical analysis rather than axiomatic synthesis. Morris's semantic "system"[25] is no system in the axiomatic sense. This is especially clear with respect to the meaning of "significance," which has no connection, systematic or otherwise with "signification." Morris distinguishes between the signification and the significance of terms—their sign and their value character. By signification of a sign he means

> the properties something must have for the sign to apply to it....Thus if a given person applies the term 'banana' to an object if and only if the object has properties a, b, and c, then the set of properties a, b, and c, constitutes for him the signification of the term, 'banana.' In that case if he is told that there is a banana on his desk he will expect to find there...an object with these properties. Under this criterion for signification it is in principle, and often in practice, possible to find out by objective methods the signification which a sign has for an individual or group of individuals.[26]

Morris uses this analysis of signification for determining the signification of such words as "good" and "bad." "These words signify not merely in a context of significance, they signify significance directly." He calls such terms appraisive signs. Just how they "signify significance" is a question he tries to answer through an experiment. There are, he says, three major alternatives as to the signification of appraisive signs.

> Assuming that appraisive signs do signify, the determination of their signification may involve (a) reference only to the object reacted to and not to the actor, (b) reference only to the actor and not to the object reacted to, or (c) reference to both the actor and the object reacted to. These three positions may be called *the objectivist, the relativist, and the objective relativist* positions.[27]

Which of these positions is the correct one his experiment is to determine.

The experiment is based on a correlation of liking expressions and goodness expressions. The subjects were shown colored reproductions of paintings and asked to indicate how much they liked each picture by putting after the number of each picture one of the following seven marks:

7. I like it *very much.*
6. I like it *quite a lot.*
5. I like it *slightly.*
4. I am *indifferent* to it.
3. I dislike it *slightly.*
2. I dislike it *quite a lot.*
1. I dislike it *very much.*[28]

The ratings so obtained are called P-ratings (preference-ratings). The subjects were told explicitly that they were not to judge a picture as a work of art, but were simply to indicate the strength of their own liking of disliking for each picture. The subjects were then given an additional task. They were asked to appraise twenty of the pictures as works of art. In doing this they had no access to their earlier P-ratings. The marks by which they indicated their appraisal of a painting as a work of art were as follows:

7. It is *very good.*
6. It is *quite good.*
5. It is *somewhat good.*
4. It is *indifferent.*
3. It is *somewhat bad.*
2. It is *quite bad.*
1. It is *very bad.*[29]

Such ratings were called A-ratings (appraisal-ratings).[30] The experiments had, among others, the following interesting results: 19 of the 20 paintings were signified as *both* aesthetically good *and* aesthetically bad. From this Morris concludes, "There can be no observable property or properties of the paintings alone, which would constitute the signification of 'aesthetically good' or 'aesthetically bad.'" He continues, "The analogy for the term 'banana' would be a situation where 19 out of 20 objects were signified as being bananas and also signified as not being bananas." From this "analogy" Morris concludes that the signification of "good" and "bad" cannot possibly involve reference only to the object reacted to and not to the actor. The term "good" apparently does not signify objects in the way the term "banana" does. Either it has no signification, or it is very ambiguous in its signification (differing from person to person), or it signifies in some different manner than does a designative word such as 'banana.' If this last alternative can be established the first two alternatives are ruled out.[31]

Morris then examines the data from this point of view, beginning with the "simplest hypothesis" that

> while the term 'good' says nothing about objects, it does signify (or express) something about a person who uses the term. But if this is so there should be a very close relation between the A-ratings and the P-ratings of the twenty paintings. There is in fact a correlation of .50 between the two sets of ratings, and this is statistically significant. But it is not a 'very close' relation; it shows a connection somewhere between preferences and appraisals, but also a considerable discrepancy between them. The problem posed is to explain both the positive correlation between the A- and the P- ratings and why the correlation is not higher. The correlation between the two sets of ratings differed widely from subject to subject, spreading all the way from .99 to .05. Does that relation, however, differ with different kinds of persons?[32]

"To determine this," Morris indicates, "some of the subjects were somatotyped according to William H. Sheldon's" distinctions between endomorphic, mesomorphic, and ectomorphic types, named after the three embryonic skin layers. These are the pyknic, the athletic, and the ascetic, or the stout, the muscular, and the lean ones. The subjects were

> classified into five groups: those predominantly endomorphic with mesomorphy as the second component; those predominantly mesomorphic with endomorphy as the second component; those predominately mesomorphic with ectomorphy as the second component; those predominantly ectomorphic with mesomorphy as the second component; those who differed only slightly in the strength of the three components.[33]

These five groups showed the following correlations between A-ratings and P-ratings:

> .87, .75, .58, .51, .44. This suggests that different kinds of person differ, even at the level of constitution, in the closeness of their A- and P- ratings, the relation being significantly closer for the more endomorphic groups than for the more ectomorphic groups.[34]

A further test with art critics confirmed that

> There is a tendency for persons to prefer and to appraise positively paintings which symbolize a situation that would satisfy their constitutional needs, that is, which portray a situation of a sort that is congenial to themselves, and, if persons are portrayed, in which persons act as they themselves prefer to act. Thus the vigorous, muscular, mesomorphic persons tend to prefer and appraise positively paintings that show mesomorphic persons in a realistic situation in which they are actively dominant. The relaxed, receptive, endomorphic persons tend to prefer and appraise positively paintings that are imaginative and meditative, and in which persons and things are in close rapport, neither isolated from each other nor struggling against each other. The sensitive, self-protective, ectomorphic persons tend to prefer and positively appraise paintings in which persons and objects keep their distance, neither pressing upon each other nor merging with each other.[35]

In sum, "*at least the more extreme agreements of A- and P- ratings are found in those higher in endomorphy, and the more extreme disagreements in those lower in endomorphy (and hence on the whole higher in ectomorphy)*."[36]

From all this Morris concludes that of the three positions possible with regard to the signification of significance, the third, that of the objective relativist, is the correct one. He further concludes that the nature of significance is a psychological one, namely to satisfy needs. "The data that have been examined support the thesis that appraisive signs do not signify objects in isolation from persons or persons in isolation from objects, but objects in their capacity to satisfy needs."[37]

Besides dividing the experimental subjects into the five somatotype groups, they were divided into two additional groups, those "interested in paintings," and those "not interested." The correlation between the A- and P-ratings was significantly higher for those interested than for those not interested, .63 in the first group, .39 in the second. This division superseded the first: the relation "of the two ratings to differences in physique tends to drop sharply for those interested in painting, the relation being in the same direction but no longer statistically significant."[38] In spite of this, in Morris's study

"attention has been directed primarily to constitutional factors in order to simplify the problem for initial study and to make clear the basic line of argument."[39]

Morris explains some of the features of the experiment in terms of his "result" that significance (or value) is satisfaction of needs. By "need" he means "a tendency or a readiness to preferential behavior,"[40] somewhat similar to the definition of value we found in Garnett, namely, taking a favorable attitude to an object. By "satisfaction of need" is meant "the doing of what one needed to do, that is, doing what there was a tendency to do. Whatever makes possible this action has, with respect to the need in question, significance, and it is such significance that appraisive terms signify."[41] Thus, value is relative to a tendency, and it is what makes possible the fulfillment of the tendency, namely a specific object. "*The significance of an object is a property of the object relative to beings with needs.*"[42] Appraisive terms signify the significances of objects, that is, their capacities to satisfy needs.[43] Non-appraisive or designative terms, such as "banana" simply signify the signification of objects, that is, what is "expected" or "imagined" of the object to which the sign refers. "*Things have significance in their capacity to satisfy needs, and they have signification in their capacity to control expectations.*"[44] This determination of value (significance), now raised from the assumption of a "Great Word's" meaning, is almost a definition used to explain some of the characteristic features of the experiment. Morris's experiment raises some important questions.

(1) *Why can the same painting be called good by some and bad by others without contradiction?* Because

> as persons differ, with respect to needs, so does the significance of an object differ. In this way the term 'good' can have the same signification to a number of persons even though the objects to which the term applies differ with the persons. This could not be the case if 'good' were a designative term such as 'banana.' As an appraisive sign 'good' when claimed to apply to an object, leads to tendencies to favor the object in action and to expectations that the object will be found satisfying. The claim is directly confirmed to the degree that these expectations are fulfilled in commerce with the object, and indirectly confirmed to the degree that there is evidence that the expectations would be confirmed if there were to be such direct commerce with the object. Thus, in the last analysis, the evidence for the applicability of an appraisive sign in distinction from a designative sign, consists in finding the object appraised to be satisfying or unsatisfying with respect to the need of needs for which the appraisal was made.[45]

(2) *Why did A- and P-ratings correlate positively; and why was this correlation not higher than it was?*

> The correlation was positive because to like an object is to find it satisfying, and objects which have this property are in general appraised positively. The human being, however, has many needs, and the need which is involved in a preference-rating of an object may not be the same need, or the only need, which is controlling the appraisal-rating of that object.[46]

(3) *Why did the relation of the two ratings to difference in physique drop sharply for those interested in painting?* Because "as technical skill and knowledge develop, new interests and needs develop, and preferences and appraisals are not so directly a function of the constitutional level of personality."[47]

(4) *What is the general relation between significance and signification, that is, between appraisive and non-appraisive signs?* In spite of the disagreements possible about the goodness of badness of things,

> the term 'good' has a common signification: diverse persons in virtue of the diversity of their interests can find different objects good and yet 'mean the same' by the term 'good'. If this interpretation be legitimate, the term 'good' has a semantic component. It does not merely express or name an existing liking but predicts of an object that it will be or would be found satisfying....This capacity to satisfy interests is, in a large sense of the term, a 'property' of objects, and the term 'good' (together with such terms as 'better' and 'best') signifies on this interpretation such properties. Nevertheless, the term 'good' differs in signification in two important respects from such a term as 'red.' It predicts nothing about an object that could be observed by the senses or by an instrument; the goodness is not a property co-ordinate with observable properties but *a property of such properties*, *i.e.*, of their capacity to give satisfaction to some interest. Hence if a term like 'red' is said to designate, then the signification of the term 'good' is not a case of designation. Secondly, living beings seek objects that satisfy their interests, and so to signify an object as good is to arouse a tendency to favor and to seek out that object. By the same token, a term like 'good' can be used by a person in an attempt to direct the preferential behavior of another person (and of course his own preferential behavior). A term such as 'red' has no such constant relation to preferential behavior....For these two reasons it is convenient to call such a term as 'good' a value term to distinguish it from designative terms and convenient to say that its signification is appraisive rather than designative.[48]

While the definition of value as need fulfillment explains quite a few things, two fundamental results and two fundamental assumptions are not explained by Morris. The first fundamental result is the higher agreement of the P- and A-correlations with endomorphs and the lower one with ectomorphy.

(5) *Why do endomorphs show such correlation and why do ectomorphs not?* Why is not rather the opposite the case? This is a fundamental question Morris should have asked and answered. The second fundamental result is that each bodily type prefers pictures that have affinity to it. Why is this so?

(6) *Why do endomorphs not prefer ectomorphic picture types and vice-versa?* Is it not true that *les extrêmes se touchent*? Why should the somatic here feel attracted to what is like rather than what is opposed to them? This is again a fundamental question that Morris does not discuss. Rather, he jumps from this unexplained fact to the conclusion that an object thus affinited to the person represents a person's "constitutional need." Could not such a need be represented equally well by a thing opposite in type to the person? If, in the experiment, endomorphs had selected ectomorphic pictures, ectomorphs mesomorphic, and mesomorphs ectomorphic ones—as well they might have, and as future experiments might show they do—would not Morris then also have said that their choices fulfilled their "constitution needs"? What difference then does it make what kind of pictures the types choose as long as they do choose? Is not choosing rather than what they choose the need fulfilling?

This leads us to Morris's two fundamental assumptions. The first is prejudging the nature of value.

(7) *Has not Morris begged the question and used the outcome of the experiment to confirm an assumption he had made, namely, that significance is need satisfaction, and in a way that any result would have—and could have—served as confirmation?* Morris's assumption is that

> every sign in its actual functioning occurs in a context of significance.... Since signs are produced or attended to for a purpose, signs themselves always have some degree of significance depending upon the adequacy with which they fulfill purposes.[49]

Thus, just as does Hall, Morris prejudges the nature of value (significance) and does so in such a vague analytic way that any outcome of the experiment would have confirmed it. Obviously, what we strive after is a value for us: but this does not mean that value is what we strive after. This is simply an illicit conversion, a confusion of genus and species. Nor does our striving mean that we fill a "constitutional need." It may mean many other things—again a confusion of genus and species. Even less does this mean that therefore filling a constitutional need is a value. The fallacy of this procedure is too obvious to need pointing out. It is the same as Hall's fallacy, that of the

undistributed middle. As Hall used "science" in a faulty syllogism, so Morris uses "purpose."

> Purpose is need-fulfillment
> Value is purpose.
> Therefore, value is need-fulfillment.

Not all purpose is need-fulfillment, especially not in every action whatsoever, no matter how trivial. To look at pictures is for many, especially those not very art-minded, a trivial action, and no need fulfillment at all.

This faulty syllogism, then, is tested by an experiment which is based on a syllogism that is faulty both formally and materially—formally as exhibiting the fallacy of the undistributed middle, and materially as based on the identification of liking and purpose. Not all that fulfills constitutional needs is liked; on the contrary, much that fulfills such needs is disliked, such as pain; and the need fulfillment is, precisely, the disliking. People that cannot feel, that is, dislike pain, suffer from a most serious constitutional disorder. Also, much is liked that does not fill constitutional needs and is even harmful to these needs, as we all know, and as the statistics of lung-cancer make strikingly clear. The faulty syllogism here is:

> What fulfills a need is liked.
> Pictures a, b, c, are liked by A, B, C.
> Therefore, pictures a, b, c, fulfill the needs of A, B, C.

Jumping from the affinity of actor and object to calling such an object a "constitutional need" of the person is unwarranted, especially as long as the question of the attraction of the affinity rather than the opposite is not explained. But if the definition of value as need fulfillment is, on the basis of the experiment, doubtful, the answers to all the above questions are equally doubtful. We again have a procedure reminiscent of alchemical thinking: building a huge pseudo-scientific apparatus on unexamined, vague, analytic concepts, on the common sense talk and faulty thought processes of the man in the street.

The second assumption is not a prejudging but, as it were, a postjudging of value. It is the jump from the result that 19 out of the 20 paintings were signified as *both* good and bad, to the conclusion that therefore the first alternative with respect to the signification of appraisive terms, the objectivist one that finds the value properties (significance) in the object independently of its relation to persons, is untenable. This is another fundamental assumption, and if it proves to be untenable, if that first alternative is not excluded, then even more of Morris's experiment becomes axiologically invalid for the following reason.

(8) If Morris's experiment does not exclude the objectivistic alternative, *what remains of the other two alternatives and, indeed, the interrelational "objective relativists" basis of the whole argument?*

4. Synthetic Value Measurement and Prediction

I shall now show that the first alternative is not only not excluded by the experiment, but the experiment, on the very contrary, confirms this alternative. All the preceding questions not answered by Morris will be answered, and more consistent and precise answers will be given to the questions he has answered. This will be done by using the tool of formal axiology. A fourth and most detailed example will illustrate the use and correctness of this tool. Morris's experiment will be assigned a genuinely scientific position in axiology, a position within the threefold Galilean procedure of theory, demonstration, and verification: that of testing and confirming a formal theory. Morris's manipulation of numbers will thus become *legitimate*, being used "only to give definiteness to [moral] philosophy, not to generate or give it birth," to speak with Bacon. It will be referred to value itself and not to what people say about it. What people say will be used only after determining what value is, as confirmation of the theory, and not as the determination of it—just as a physician uses the symptoms people report to him not to produce a new concept of a previously unknown sickness, but to confirm and apply a concept he already has. Only by his previous knowledge is he able to cure them. Logically, if he is to cure them, what his patients say must be properties of a concept the intension of which he knows; they must not constitute a new concept of which he has never heard.

To be *scientific*, an experiment must *confirm*; it must not be random, as were those of the alchemists. It must give back what the experimenter first put in, and it is a failure if it refuses to do so. The experimenter's own mind must prescribe and guide the course of the experiment and determine its results, as either affirming or denying. This means that the concepts he wants experimenters to test must not be so vague that whatever the outcome of the experiment, it may be held both to affirm and to deny. Rather, they must be precise, for only to a precise question can a precise answer that makes sense be given. Only in such a case can the experiment confirm a prediction. *Prediction presupposes precision.*

Only synthetic science implies experimental predictability. Analytic concepts can predict no more than a fishing net can catch flies. Since such concepts have no precision, they cannot predict precise events. Analytic concepts are as inadequate for the direction of experiments as they are for the application of mathematics. If the combination of analytic concepts with numbers is numerology, their combination with experiments is what I called *empirology*, the premature use of experiment, the use of experiment without guidance by a

theory precise enough to be tested or to *predict* a definite outcome.[50] All experiment in today's social science is empirological rather than empirical, prescientific guessing rather than scientific verification. These "sciences" can become sciences as soon as a precise theory, in synthetic terms, is supplied. I shall now attempt to do this with respect to Morris's experiment.

This experiment is so fascinating because it deals with the relationship of naturalistic and non-naturalistic properties. Everything Morris says can be said consistently in terms of formal axiology and on the basis of the Moorean relation of these two kinds of properties. *All of Morris's empirical results can be deduced purely formally by axiology and can thus be predicted.* This experiment becomes the test of a theory, and the theory the explanation of the experiment. Its features, whether discussed by Morris of not, will fall into a pattern. Its errors appear in sharp relief. Features not discovered by Morris will appear, and new experiments will be projected to test them. The theory will appear like the roof of a temple of which Morris's experiment has shown only single isolated columns. Now I will proceed to supply this proof.

Morris and formal axiology have the same point of departure. The word "meaning," says Morris, is double-faced. If we ask what is the meaning of life we may want a definition of the word 'life,' or we may be seeking wisdom for the conduct of life.[51] "Meaning" has both a logical and an axiological meaning; but the two meanings of "meaning" have, in Morris, no connection with each other. All they have is the two names, "signification" and "significance," where the second means neither more nor less than the vague and undetermined word "preference," identified with "value" itself. Significance is the context of purpose within which signs signify and it is what appraisive signs signify, where "appraisive" means no more than that they signify preference. All these concepts are undefined, vague, common sense concepts. "Significance" has no semiotic meaning for Morris at all; it is not a semiotic category, as is signification.

Since there is no relation at all between signification and significance in Morris, except a verbal one, the "double face" of "meaning," for him, is really two faces. "Meaning" is not so much double-faced as two-faced; not so much Janus as Hydra. Formal axiology, by contrast, does organically relate signification (intension) and significance (value); it does so systematically and with precision. They are combined by the axiom of value. The *value* of the thing is the fulfillment of its *intension*. The *meaning* of a thing in terms of *value* is *the fulfillment of its logical meaning: the axiological meaning of a thing is fulfillment of its logical meaning.*

With this relation, formal axiology starts out with a tremendous advantage over Morris's semiotics. The concept "value" is precisely structured within a system, whereas it has no structure and does not belong to any system in Morris. I can now translate my formal definition of value into terms of Morris's semiotic. His "signification" is the situational aspect of logical

intension. This notion, combined with the formal definition of good, allows me to define value—Morris's "significance"—in terms of his "signification." Using the definition of "good" as the predicate of a subject that possesses all the intensional properties of its concept, we find that the intension of the term "good" is its reference to the total set of intensional properties of a subject. Translated into Morris's language, this means that the signification of "good" is the signification of the term to which "good" refers plus the assertion that a particular thing actually has the properties signified. In other words, "good" signifies *signification plus the fulfillment of the corresponding expectation.* This two-dimensional signification of "good" is, in my interpretation, though not in Morris's, "significance." Thus, value terms do indeed "signify significance directly"; but they do so by signifying signification plus a state of its fulfillment.

Morris's definition of "good" is not very far from my axiological definition, and it would be the same if it were not couched in analytic language and corrupted by the reference to satisfaction. For Morris, as for me, the term "good" has semantic components, and it differs in signification from a term such as "red." "It predicts nothing about an object that could be observed by the senses or by an instrument; the goodness is not a property coordinate with observable properties but a property of such properties."[52] This sounds exactly like my definition of goodness based on the Moorean difference between natural and non-natural properties. Unfortunately, Morris identifies "good" with the capacity to give satisfaction to some interest, and it is this property of things of which "good" is the property. Here we encounter Morris's fundamental logical fallacy. The capacity to satisfy interest is not so much a property of *objects*, as Morris says, but a property of *the properties of objects*. Thus, "good," being a property of the capacity of objects to give satisfaction, is not a property of properties, but a property of a property of the properties of objects.

In formal axiology, "satisfaction" is a value term, as is "good." It is psychological, as opposed to moral, aesthetic, and other kinds of "good." Morris's entire discussion belongs to the field of value psychology. Value psychology is the application of formal axiology to the psychological field, just as ethics is such an application to the moral, and aesthetics to the art, fields. In formal axiology "good" is fulfillment of an intension by an object. In the applied axiology which is value psychology, satisfaction is the fulfillment of a tendency in a human being.

The second respect in which "good" differs from "red" according to Morris, is that to signify an object as good is to arouse a tendency to favor and to seek out that object. This is empirically false, as we saw when we examined the views of Garnett. In many cases, what is good arouses a tendency not to favor but to reject, and what is bad a tendency to favor and to seek out.

Thus, in defining "good" Morris not only commits the naturalistic fallacy, without discussing it, but also a logical and an empirical error.

I shall now interpret Morris's experiment in his own terms in relation to my redefinition of value, and—one by one—will answer both the questions he raises and others he does not raise. The answers will appear as consistent results of the postulate of formal axiology, formulated in Morris's terms, that *"good" signifies signification plus the fulfillment of the corresponding expectation.* If this formulation really explains all the features of the experiment, as we shall see it does, then Morris's notion of "significance" is a *multipliccatio praetor necessitatem.* For, as Morris himself would agree, insisting, as he does on the scientific character of his investigation,[53] even comparing it with Galileo's,[54] there is no place in a science for a term that has neither systematic structure nor empirical relevance.

(1) Morris first asks *why the same painting can be called good by some and bad by others without contradiction.* I will answer this together with the last question, (8) *whether Morris's experiment excludes the objectivistic alternative of valuation.* Morris is quite correct in answering the question by reference to the nature of "good" as a second-order property—a property of a property—and hence its difference from a designative term such as "banana." But he does not need to bring in need satisfaction at all, or any reference to the third alternative of the signification of significance, the "objectivist relativist position." The question can be answered by the objectivist theory of Moore and of formal axiology. Actually, Morris here commits another logical fallacy. Let us first see how the disagreement about the goodness and badness of the same pictures can be explained by Moore's relationship between the natural and the non-natural properties, as interpreted by formal axiology. Then we will look at the fallacy by which Morris excludes the objectivist position.

According to G. E. Moore, "good" is not a natural intrinsic property, that is, a property which is part of the description of a thing, but a non-natural intrinsic property, which is not part of the description of the thing. In formal axiology, this means that "good" refers to *the total set* of all the natural intrinsic properties of an object. In the light of this interpretation, Morris's result can be taken to show that an object appears differently judged descriptively, that is, by analysis of its properties, and when judged nondescriptively, that is, when these properties themselves are being judged. For, whereas there would be very little difference in the answers if the question had been whether these were pictures, there were differences in the answers to the questions whether these were good pictures and whether the subjects *liked* them. Both these questions referred not to the descriptive nature of the pictures, to their properties a, b, c, that make them pictures, or to their signification, but to the signification of these significations, plus the fulfillment or non-fulfillment of the corresponding expectations. But whereas the first ques-

tion, "How do you like the picture?" puts the emphasis on the *fulfillment* of the *expectation*, the second, "How good is the picture?" puts it on the signification of the signification.

Let us now see what would be the analogy to this stage of affairs with reference to the term "banana." Morris says, "The analogy for the term 'banana' would be a situation where 19 out of 20 objects were signified as being bananas and also signified as not being bananas."[55] From this "analogy" he concludes that the signification of "good" and "bad" cannot possibly involve reference only to the object reacted to and not to the actor. *This analogy is logically fallacious*. Morris says that "since 19 of the 20 paintings were signified as both aesthetically good and bad, there can be no observable property or properties of the paintings alone which would constitute the signification of 'aesthetically good' or 'aesthetically bad.'"

The analogue to the question "Is this picture good or not good?" is not "Is this a banana or not a banana?" but "Is this a good banana or not a good banana?" To this question the very same kind of answers would be given as to the question of the goodness of the pictures. The question concerns the goodness or the badness of something, not its descriptive signification. The question analogous to, "Is this a banana or not a banana?" would be, "Is this a picture or not a picture?" To this, the answer would be the same as to the question whether this is or is not a banana. Anyone who knows what a picture is, just as anyone who knows what a banana is, would give the correct answer, and there would be no disagreement. Thus, in Morris's experiment, "the analogue for the term banana" is not that 19 out of 20 objects would be signified as being bananas and also signified as not being bananas. The analogue for the term "a good banana" would be that 19 out of 20 bananas were signified in their significance *as good bananas and also as not good bananas*.

It is peculiar that Morris, who explicitly states that there is no relation between signification and significance,[56] should want to make an analogy between the two, and inconceivable that he should confuse them. We again have the dangers that lurk in merely analytic thinking. Morris concludes this part of his argument with, "No inspection of objects signified as not being a banana or not being good can determine the properties necessary to call something a banana or to appraise it as good."[57] This statement is completely irrelevant. It only shows that there is an analogy between signification and significance when both are taken negatively, or in the category of limitation; it only says that this category is applicable to anything that can be thought: namely, that from a negative statement about x nothing positive can be concluded. But it does not say anything about the positive relation between being a banana and being good, or between signification and significance—for the simple reason that, for Morris, no such relation exists.

Formal axiology discovers that Morris's contention with respect to the signification of appraisive terms—that the objectivist alternative is untenable—is based on a fallacious argument. Formal axiology very clearly explains the disagreement of persons about one and the same object's goodness or badness in terms of the object's "objective" possession of both descriptive and non-descriptive properties. It shows that Morris's fundamental conclusion, that valuation is not objective, is untenable. If the experiment is regarded as a test of axiological theory, I would say that it confirms *the objectivity of the definition of "good" and the relativity of the application of this definition in actual cases.*

The axiom of value is objective. Every rational being uses it *qua* rational being. If a being thinks rationally, that is, combines concepts with objects and relates them logically, then there is a word which signifies that the object in question has all the properties of its concept. This word in our languages is "good," "*gut*," "*buenos*," "*khoroshyi*," "*jo*," and so on. It is a logical term, to be exact, a predicate which predicates that a thing possesses all the properties of its concept. It is thus a predicate relating to predicates, or a predicate of the second order. This characterization has as exact a logical meaning as any statement in mathematics. Formal axiology thus is as "objective" as mathematics.

While formal or axiological value is objective, its *application* is, like the application of any scientific term, subjective. It may well be that what Peter calls "good" Paul calls "bad" and what Paul calls "good" Peter calls "bad." But their disagreement is not a matter of axiology; it is a matter of its application. In this respect, axiology is not different from mathematics. A drunk who sees four apples where I see only two does not invalidate arithmetic; he only *applies* it wrongly. His mistake is in seeing, not in adding. He would agree with me that two and two are four.

In the same way, whenever any people think that a thing fulfills the intension of its concept, they will call it "good"; whenever they think it does not fulfill its concept, they will call it "bad." Thus, both will confirm axiology. Whether anyone rightly of wrongly thinks that a thing does or does not fulfill its concept is a different matter, not one of axiology, but of its application. Morris's experiment perfectly confirms this train of thought.

(2) *Why was there a positive correlation between A- and P-ratings, and why was this correlation not higher?* If we refine goodness as the signification of signification plus the fulfillment of the corresponding expectation (as expressed in the intension of its concept), then we have three levels of decreasing objectivity or increasing subjectivity in Morris's three questions, or in those he should have asked: "Is this a picture?," "Is this a good picture?," "Do you like this picture?"

(a) "Is this a picture?" This question, implied by the other two, is about signification alone. Although it presupposes a subjective synopsis of the

properties of the things, only the minimum definition of "picture" must be known to answer it. This question can be answered in the very same way as "Is this a banana?" To paraphrase Morris, "If a given person applies the term 'picture' to an object if and only if the object has properties a, b, and c, then the set of properties a, b, and c, constitutes for him the signification of the term, 'picture.'" In that case, if asked whether an object is a picture, he will expect to find there an object with these properties. As Morris says, "Under this criterion for signification it is in principle, and often in practice, possible to find out by objective methods the signification which a sign has for an individual or group of individuals."[58]

(b) "Is this a good picture?" Here a higher knowledge of the properties of a picture is needed, not only of the descriptive properties but also of the signification of this set of properties. It is a question of the signification of signification. This, in the case of pictures, constitutes aesthetic knowledge. Fewer persons have this kind of knowledge than the kind relevant to question "Is this a picture?"

(c) "Do you like this picture?" Here those who have no knowledge in the sense of (b) will be arbitrary, while those who do have this knowledge will guide their answer by it. This explains the higher correlation between (b) and (c) among those who have aesthetic "interest," that is, a kind of aesthetic knowledge. It also explains why the correlation is higher (because quite a few did not have such knowledge), and why it was not lower (because some of those who have no aesthetic knowledge are statistically bound to choose as if they had). Thus the experiment by its very nature tends toward correlation, especially if it were conducted with a large number of persons, even though a considerable factor, the ignorance in (b), tends towards no correlation.

(3) This also answers the third question, *Why did the relation of the two ratings to difference in physique drop sharply for those interested in painting?* The two questions, "How good is the picture?" and "Do you like it?" belong to two entirely different realms. The goodness of the picture is a matter of cognition, and the liking is a matter of psychology. As in all such cases, to the degree that cognition increases, purely subjective factors such as purely psychological liking uninformed by knowledge, will decrease.

Morris's explanation in terms of interest and satisfaction is somewhat strained. He says that "as technical skill and knowledge develop, new interests and needs develop and preferences and appraisals are not so directly a function of the constitutional level of the personality."[59] This contains the same kind of *non-sequitur* we observed in connection with affinity and need; it does not at all follow from the development of new skills and knowledge that preferences on the constitutional level decrease. On the contrary, new technical skills and knowledge may foster new constitutional preferences. We know well that certain kinds of very skillful intellectual workers need more sleep than others; but cognition, by its very nature, *decreases purely psycho-*

logical factors. On this is based all psychotherapy, all ethics, and much of experience. We feel anxiety because we don't know, and security because we intellectually master a situation. While Morris's explanation suffers from typical analytic *non-sequiturs*, the explanation of formal axiology is based on the very definitions of rationality and irrationality, their opposite natures, and hence the opposite cognitive natures of goodness and liking, the first based on rational cognition, the second on instinct, feeling, and the like.

(4) *What is the general relation between signification and significance?* has been answered already. There is no such relation at all in Morris's theory, but there is one in formal axiology. It is precisely defined, systematically structured, and empirically applicable to the point of being capable of simple formulation in Morris's own terms. All four questions asked by Morris experimentally are answered by formal axiology in a purely deductive and consistent way. Let us now turn to the questions that Morris does not ask or answer.

(5) Why *do endomorphs show a higher correlation between the A- and P-ratings, and why do ectomorphs not?* The answer is very clear from my theory, considering the analytic, pre-axiological nature of the concepts in question. Endomorphs are, on the whole, better integrated, more relaxed, more rational than ectomorphs. Endomorphs are the people that Julius Caesar liked to have about him, people that are fat, sleek-headed, and who "sleep o'nights"; but ectomorphs, like "yon' Cassius," have a lean and hungry look; they think too much, and are dangerous. Endomorphs, as Morris says, are relaxed and receptive, imaginative and meditative, outward-going, trustier, unsuspicious, dynamic. Ectomorphs are sensitive, self-protective, suspicious, self-aware, inhibited, repressed, and stationary. Endomorphs are the more integrated kind of people. The natural opposition of rationality and irrationality, knowing and liking, is with them harmonized in the higher synthesis of an integral personality. But if this is so, as it must be, then endomorphs would have both more aesthetic knowledge than psychological needs, and their liking would match their understanding, and *vice-versa*. In both cases, they would have a higher correlation between the two ratings. They would want what they know to be good and not want what they know to be bad. This is the sign of the *optimistic* type; for, by axiological definition, optimists prefer matching the properties given with the corresponding concept, while *pessimists* prefer matching them with a non-fitting concept.

Endomorphs and ectomorphs are thus exactly defined axiological types, namely, optimists and pessimists. According to the axiom of formal axiology, anything that is good under one concept because it fulfills that concept may be bad under another concept because it does not fulfill the other concept. As Spinoza observed, a good ruin is a bad house, and a good house is a bad ruin. Similarly, a good jalopy is a bad automobile, and a good automobile is a bad jalopy; a good chair is a bad stool, and a good stool is a bad chair, and so on *ad infinitum*. The art of the optimist is always to find the concept in terms of

which the thing appears good, and that of the pessimist always to find that concept in terms of which the thing appears bad. The thing is always the same; optimism and pessimism appear in the art of naming an entity, and hence of understanding it.

Correct thinking is applying the proper concept to the thing, and the proper concept is the one that contains all the properties of the thing and no others. Such a concept makes the thing named good. Right thinking, thus, is finding things good, or optimistic thinking. Pessimists suffer from incorrectness of thought and are, as Charles Peirce observed, not quite sane.[60] They do not see the wholeness of the thing, or its full significance. As has been said, for optimists the glass of water is half full, for pessimists it is half empty. In terms of axiology, for optimists the concept is half full; for pessimists it is half empty. Optimists see more of the concrete as well as the abstract worlds. Optimists are in tune, pessimists out of tune, with themselves and the world. This is the exact description of endomorphs and ectomorphs, respectively. *Formal axiology predicts that endomorphs would show the greatest correlation of A- and P-ratings, and ectomorphs the least.*

This ties in with question (3); to the degree that aesthetic knowledge increases, the reference to bodily type decreases, because ectomorphic types who have aesthetic knowledge would in this respect be endomorphs—endomorphic aestheticians or aesthetic endomorphs. They would, as far as aesthetics goes, be relaxed, receptive, imaginative, and so on. An aesthetic Caesar would rather have them about than unaesthetic endomorphs.

(6) The next question not discussed by Morris is: *Why do members of each type choose what is similar to rather than what is opposed to themselves?* Why is it not true here that *les extrêmes se touchent*? Again, formal axiology gives an effortless answer. "Ought" relates the worseness of a thing to its betterness, and "ought-not" the betterness of a thing to its worseness. In terms of choice, this means that we ought to choose what is better and not choose what is worse. It also means that it is better for us to choose what is good for us rather than what is bad for us, and that it is good for us to choose what is better for us rather than what is worse for us. The definition of "good for" is the overlapping of intensions. Normally, persons will choose a thing the intension of which overlaps with her or his intension, or, in terms of Morris's experiment, something with which they have an affinity rather than something with which they have none. Formal axiology would *predict* the kind of choices of pictures made in Morris's experiment.

Formal axiology is also able to make a prediction that is beyond Morris's experiment. Following this up in a new experiment would be interesting. Since ectomorphs are less integrated than endomorphs, they will not in the same degree choose what is good for themselves as do endomorphs. For this reason, a *greater correlation of affinity-choosing ought to be observed in endomorphs than in ectomorphs*. Ectomorphs should choose endomorphic

pictures more than endomorphs choose ectomorphic ones. By contrast, endomorphs, because of the higher integration of their intellectual and emotional natures, would be more likely to choose ectomorphic pictures because of their higher non-realistic aesthetic value. A confirmation of this seems to be that ectomorphs have the greatest preference for a picture that undoubtedly is of the highest endomorphic type, not so much in form as in content, namely: Vermeer's *The Milkmaid*, while endomorphs have the highest preference for a picture undoubtedly of ectomorphic type, again in content rather than in form, namely: Rouault's *Christ Mocked by Soldiers*.[61] Thus, what in ectomorphs is either abnormality of choice or a search for normality may, in an endomorph, be sophistication. Only with mesomorphs should we predict full affinity, choice completely in accord with their type, neither complicated by psychological perversion nor by aesthetic sophistication. In Morris's experiment this, too, is confirmed. The mesomorphs' first choice is completely in accord with their type, Marsh's *High Yaller*. All this throws light again on the relationship between affinity and need which may indeed be opposite to that assumed by Morris, and in any case is more complex than he presents it.

(7) Let us now discuss the difference between Morris's analytic and my synthetic method—synthetic, at least, to the degree that analytic terms such as "endomorph," "ectomorph" permit. In a strictly axiological science of psychology these terms will no doubt either disappear or be strictly defined. As the seventh question asked, *Is not Morris's hypothesis so wide that any outcome of the experiment would confirm it?* Is not his experiment, rather than being guided by the hypothesis, to a large degree productive of that hypothesis? Morris himself does not regard the experiment as the test of a definition of value but merely as "lending support" to the tentative determination of a "Great Word." The vagueness of his hypothesis made prediction impossible, incapable of catching the details of the experiment, as a fishing net would be unable to catch flies. The logical expression of this vagueness was a series of fallacious syllogisms. Their undistributed middle constituted, so to speak, the gaps of the analytic argument. Rather than giving definiteness to moral philosophy, therefore, the experiment was one of those "to generate or give birth," to quote Bacon. Compare Antoine Lavoisier's famous argument against Joseph Priestley: the phlogiston theory is inadequate, not because it explains too little, but because it explains too much [62]

The hypothesis was the occasion but not the framework of Morris's experiment. The experiment transcended it in every direction. My synthetic method, by contrast, is so definite as to account *theoretically*—within the limits of the experiment—not only for every feature of the experiment, but also to discover new features in it, Thus, starting with my method, the experiment can be projected as a hypothetical situation in every detail, as a *model* in the scientific sense of the word, not constructed on the basis of people's answers about something, vaguely supposed to be value, and with vague analytic/

valuational categories, but constructed in the mind on the basis of an axiom that defines value synthetically and with such precision that the experimental answers pinpoint the details of the model, confirming or denying them point by point. The experiment should be guided step by step by the theory, and the theory should *predict* the outcome on the basis of its own axiomatic deductions. I actually came to my conclusions by purely formal considerations within the limitations set by Morris's framework, and I found them to be confirmed by his experiment. As far as possible, his experiment was given a scientific setting: that of confirming a formal theory.

This, and nothing else, is the legitimate function of a *scientific* experiment. The experiment must *assume* the detailed model of whatever is the subject of the theory, in the case of value theory, value. A *scientific* experiment in value theory must only be set up in order to test the structure of value. This structure can only arise as the construct of an axiomatic theory. If no such construct exists, if the subject to be "tested" is only vaguely conceived as an analytic category, if the discussion of its definition is regarded as irrelevant or taking us "too far afield,"[63] and if it is vaguely hoped that the results of the experiment would "lend support" to the categorial assumption, then, whatever the experiment may be, it is not a *scientific* experiment about *value*. It is a pre-scientific experiment, in the alchemistic sense, and it receives its scientific meaning as soon as the chemical formula is supplied. Or, to take the case of mechanics, it is the kind of experiment Galileo's predecessors performed to "test" the Aristotelian category of movement and its various implications.

Nothing Galileo did was strictly speaking new, neither what he did inductively or experimentally, nor what he did deductively or mathematically. Ootham had demetaphysicized time and motion, Nicholas Oresme had stated the law of uniformly accelerated motion,[64] Nicholas Cusanus had constructed the famous water mechanism for measuring time,[65] Simon Stevin had performed the experiments of falling bodies of different weights,[66] Piero Tartaglia in his later writings had all but stated the law of projectiles[67]—all supposedly Galilean firsts.

Actually, the only new thing that Galileo had was the head by on his shoulders. He saw what none of his predecessors saw: that the method they had used was a radical break with the Aristotelian way of philosophizing, that *physis*, nature, is not to be approached by vague categories, but by precise *procedures*, and that man, rather than following nature's leading strings must put her on the leash and force her to follow his ways of thought. As Kant later expressed it, rather than approaching her "as a pupil who listens to everything that the teacher chooses to say," he must approach her "as an appointed judge who compels the witnesses to answer questions which he has himself formulated."[68]

The radical new view original with Galileo was his "new thinking cap," the "transposition that took place in his mind," as Herbert Butterfield[69] so

well expressed it, which brought on the scientific revolution, without changing the old materials and methods. But they were *seen* in a new light, and this new light, scientific clarity, added to the two old methods dating back to Plato,[70] the philosophical and the mathematical (or numerological)[71]—both analytic in my sense—a third, the experimental, by generalizing one of the old formulae, regarding it as an axiom, and elaborating it theoretically in such detail that detailed questions could *then*[72] be put to nature. The experiment, then, in all its expansion is covered by the theory; there are no lacunas; there is no guessing; experiment and theory are one and test one another; some old category of Aristotle is not haphazardly filled with some material meaning.

In this axiomatic rather than categorial way the experiments and constructions preceding Galileo were brought into one consistent pattern. For this reason we think of Galileo and not of Oresme, Stein, Cusanus, Occam, or Tartaglia when reflecting on mechanics. They either tried to fit their discoveries into the Aristotelian pattern, or left it to posterity either to do so or to construct a new pattern. Galileo constructed this pattern. From his new way of looking at things arose the new look of nature, the understanding that nature offers two kinds of qualities, those that fit the pattern and those that do not. Galileo, with unnecessary metaphysical emphasis, called the first the true, real, or primary qualities. Actually, "primary" qualities are merely those that fit a specific pattern: they constitute the phenomenal *morphé*, fitting in with the systemic *morphé* of the pattern. They are the properties of the phenomenon that make possible the isomorphism between the phenomenon and the pattern.

All this now, *mutates mutandis*, is true for a *scientific* value theory. Needed are not new materials or new formulae but *a new look* at the old materials and formulae. Formal axiology generalizes G. E. Moore's formula and uses it as an axiom from which to deduce the details of value structure. It provides the structure of value; what it calls value are the primary qualities of value phenomena that prepare the phenomena for the pattern. The qualities of each value phenomenon that fit it into the pattern are the isomorphic qualities of value and "value," value being the phenomenon and "value" its definition, in formal axiology. The pattern is not categorial but axiomatic, not analytic but synthetic.

Morris's experiment, by contrast, "tests" an Aristotelian category, that of choice as the value fundamental, renamed by Morris as "preferential behavior." Morris states and describes many of the same value features by categorial analysis that I state by axiomatic synthesis; but he lets the experiment determine his theory, listening to it as a pupil, while I use the same experiment to answer precise questions formulated independently from it, and *judge* the experiment in terms of the questions formulated. Instead of a vague philosophical category, an unstructured amorphous concept called "value," I axiomatically construct a theoretical pattern that I *posit* synthetically to represent

the structure of value. By this theory the experiment is tested as much as the experiment tests the theory. It is *scientific*. Fortunately, both test are successful. The experiment confirms what is theoretically deduced, and the theory confirms what the experiment presents. But many of the inferences Morris draws from the experiment on the basis of his categorial assumptions are disproved.

From the point of view of the new theory of formal axiology, the experiment does become, as Morris intends, a contribution "to bring the socio-humanistic disciplines within the scope of the program of unified science."[73] From this point of view, Morris's experiment has all the scientific value it claims to have, but it does not have it, given the present state of value theory, from any other point of view. Morris chose Lao Tzu's motto, "In the affairs of men there is a system." If so, and if, as Morris also maintains, natural science is the model of this system, then value theory must cease to be categorial analysis and begin to be axiomatic synthesis. It must advance from philosophy to science. Morris, with ingenious experimental perception, has made this step in practice. Lacking theory, he failed to interpret it either correctly or comprehensively. Needed was a systematic theory, now supplied by formal axiology. With it, the features of the experiment not only fall into a pattern, but experimental testing of new features can be suggested.

Morris is not correct, or at least he leaps ahead to the existence of a formal hypothesis, when he compares his own procedure with Galileo rolling balls down an inclined plane. Galileo did this for the very reason that is lacking in Morris, namely, in order *to confirm a formal theory*.[74] Such a theory he had first worked out by *thinking*, by penetrating to the essence of the phenomenon, to the point of *becoming a falling body*, as he expressed it—by not contenting himself with the concepts of common sense, but by resolutely disregarding them. Axiology is not, as Morris believes "of the time of Galileo."[75] It will not be of that time, let alone of the time of Newton, *until and unless a formal theory of axiology is supplied based on penetration into the value phenomenon.*

As we have seen, such insight exists in our age, that of G. E. Moore. The new scientific axiology that was Moore's aim will differ from present-day social and value disciplines as chemistry does from alchemy. Present social and value theory, as far as it aspires to being "scientific," combines in alchemical manner naive analytic concepts of everyday discourse with metaphorical uses of number. It exhibits all the trappings of science without possessing its essence, which after four hundred years of genuine exact science, is not excusable. Our modern social alchemists are more to blame than the medieval alchemists whose ignorance was not relieved by knowledge of the correct method. This method, however, can only be used by those who understand the paradox on which Alfred North Whitehead insists for both the sphere of fact and that of value: the most radical abstractions are the true arms

for controlling the most concrete phenomena.[76] The "radical abstractions" must not be confused with generalizing abstractions. The first are reductions of the material of analysis in the sense of Descartes, Leibniz, and Newton. They represent both intensional and extensional enrichment—unlike the second, which is enrichment of one act of thought at the expense of another.[77] These radical abstractions make possible the measurement of phenomena. Measurement, in the last resort, controls the subject matter.

Two axiologists clearly see the necessity for the most radical abstraction to control the field of value, José Ortega y Gasset and Theodor Lessing. Their vision remained mere project. Ortega's was lost in the supposed "irreality" of value. Lessing's bogged down in the fallacy of method. But their approach, based on that of Edmund Husserl, constitutes the closest approximation of analytic to synthetic reason in contemporary philosophical axiology.

Eleven

THE FORMALIZATION OF VALUE

And of course, the mere fact that many people have thought that goodness and beauty were subjective is evidence that there is some *great difference of kind between them and such predicates as being yellow or containing a balance of pleasure. But* what *the difference is, if we suppose, as I suppose, that goodness and beauty are* not *subjective...I confess I cannot say.*[1] G. E. Moore

Axiology or the science of values will be a system of evident and invariable truths, of a type similar to mathematics.[2] José Ortega y Gasset.

1. The Non-Reality of Value

José Ortega y Gasset's *Introducción a una Estimativa* (*Introduction to a Science of Values*) intends to determine the systematic import of a science of axiology. Within this subject it plays a threefold role: it is the closest possible approach of analytic reason to synthetic reason; it is a determined yet impossible attempt of analytic reason to encompass within its own framework synthetic reason and its formalization of the subject matter; and, with its notion of the irreality of value, it is an ingenious but futile expedient of analytic reason to find a way out of its impasse. It represents, so to speak, analytic reason beating against the barriers of its own understanding.

To see all of this, Ortega's essay must be studied hermeneutically. The first section of this chapter is a commentary on his essay (which I have translated into English). It will serve as a summary of the history of value theory. Ortega's essay has the subtitle: "What are Values?" and is divided into seven sections and an introduction. In the introduction the author tells us that traditional philosophers freely used the words "good," "value," and other value concepts without ever specifying their meaning. The word "value" itself was not found before the end of the nineteenth century, and even then it was used mainly in the sense of economic value. As Ortega explains,

> It was the English who, more than others, had an idea, though a vague one, of the subject that interests us so much today. In the works of Hutcheson, Shaftesbury and even Adam Smith one breathes the atmosphere which, more clarified, surrounds today the theory of value. The first thinkers who discovered Value as an independent scientific problem, however, were Herbart (1776–1841), Beneke (1798–1854), and Lotze (1817–1881). It may be noted, by the way, that the so-called 'philosophy of value' (Windelband, Rickert, Münsterberg) has hardly any-

> thing to do with the 'theory of value' which occupies us today. In Ethics and Aesthetics, in Sociology and Psychology, the term 'value' is being used all the time without anybody's trying to examine its meaning in a special investigation. Kant, in his ethical writings, especially the *Foundations of the Metaphysics of Morals*, speaks several times on every page of 'value,' and not marginal to the argument or fortuitously, but in the most substantial way. The decisive themes of the Kantian moral system are planted and resolved in formulas where the word 'value' has a prominent position. Again and again we read expressions such as 'absolute value,' 'relative value,' 'intimate value of a person,' 'moral value,' *etc.*, without Kant's ever offering us, in order to determine the weighty meanings he associates with the word, at least a nominal definition of value, let alone a considered investigation of the objective problem which the term raises.

What is true of Kant is also true of Nietzsche, who, though he speaks of the *transvaluation of values*, "takes recourse to the word 'value' precisely when all other concepts seem to be useless for the understanding of certain phenomena." He uses the word without systematic import, which, says Ortega,

> is equivalent to recognizing that where one speaks of value there exists something irreducible to any other category, something new and distinct from all other aspects of being. Would he then not be obliged so much the more to state with a little more precision in what consists what we call value?

The purpose of Ortega's essay is to make up for this failure of traditional philosophy: "I would like by the shortest route to lead the reader toward a clear and rigorous notion of what are values." He makes clear that by "value" he understands not a *species* of value but *value in general*; he thus avoids the moral fallacy. "Our subject, then, is not a particular class of value; not what is moral value or economic value or aesthetic value but what is value in general is the goal of our investigation." He is astonished at the magnitude of the task, and the fact that it still is a task.

> It is strange beyond imagination that such an essential and extensive problem appears before us as a *terra incognito*. We are in effect before the paradoxical situation that, while philosophy from the beginning has attended to the problem of being, its equivalent in extension and dignity, the problem of value, seems hardly to have been dealt with, if it has not entirely been ignored, by philosophers.

So, while natural philosophy has elaborated its subject matter, fact, to the point of offering us the dominion of the universe, the whole second half of the world, value, has not been elaborated at all. It is still *terra incognito.* Charles Hartshorne has also noted a century-long sloppiness of philosophers which "staggers the imagination" in another central field, that of ontology.[3]

The subject has not been totally disregarded. As noted many times in this book, it can be clarified only by means of the instrument I called the axiological fallacies. Ortega y Gasset says almost the same: "Such a radical subject does not tolerate to be passed over....The subject appears in one way or another in the body of science. Sometimes it is confused and mixed up with other problems...." This means that the metaphysical fallacy has been committed and that the problem of Being and that of Value have been confounded. At times, "the problem appears hidden under some of its particular forms," which means, the commission of the moral fallacy. At other times, "its presence will consist precisely in an aggressive absence like in a mosaic where the missing piece makes its lack stand out in the exact profile of the hole." Here we are reminded of positivism, which, in this manner, circumscribes negatively the problem of value.

Ortega y Gasset is particularly clear about what I have called the moral fallacy. As he expressed it,

> The version in which Value has most frequently chosen to hide itself is the idea of the Good. For centuries it was this idea which has most closely approximated thought to life, to the idea of the valuable. But, as we shall see soon, the good is nothing but *either* the substratum of value *or* a class of value, a species of the genus value. *When one does not possess the truly generic idea, the species converts itself into a false genus of which only the specific characteristic is known.*

This is a classic characterization of the axiological fallacies, especially the moral, and that of method. Ortega y Gasset clarifies the fallacy with an analogy from natural philosophy.

> For the primitive thinkers of Ionia there existed no other objects than the corporeal or physical ones. No other class of objects had yet entered into their field of awareness. Consequently, for them there did not exist the distinction, so obvious for us, between Being itself and physical or corporeal being. Only the latter was known to them. Therefore, body and being were synonymous for them. Being was defined by corporeality, and their philosophy is *physiology.*

Pythagoras discovered incorporeal objects and, consequently, general and formal being, just as we today are discovering general and formal value.

> Pythagoras makes the dramatic discovery of some objects that are incorporeal and yet oppose the same resistance to our intellect as corporeal objects to our hands. These are the numbers and the geometrical relations. In view of this, it is not possible, when speaking of Being, to mean corporeality. Besides it, there is, as another species of being, the ideality of mathematical objects. Such duplication of beings makes us aware of our former ignorance about being. We knew the species of corporeality but not what of the genus of Being is in it.

Thus was discovered an ideal and formal frame of reference in whose terms we could explain corporeal being, as was done by Pythagoras in applying his mathematics to musical strings and to the measurement of distances by means of triangles and rectangles. Ortega applies this analogy to the problem of Value.

> Analogically, on speaking of Good, we arrive only at a specific form of value without suspecting behind it the genus value. We have an immediate proof that the genus is something very different in the simple consideration that the Good and the Bad exclude one another, are contraries one of the other, and yet are both values: good a positive value, bad a negative value. What then is this norm 'Value' common to both and specified thus in contrary characteristics?

Behind the specific values of our lives is a Value that is as purely formal as the mathematics of Pythagoras, and which is manifested, for example, in the formal opposition of good and bad. The question then is, "What is this value in general?" *That* Value exists is not in question.

Each thing, says Ortega, can be regarded as both fact and value.

> The consciousness of value is as general and primitive as the consciousness of objects. It is difficult for us to limit ourselves, when confronted with something, to the apprehension of its actual constitution, its qualities, its causes and effects. Beside what a thing is or is not, was or could be, we have in it a rare, subtle character in view of which it seems to us valuable or valueless. The circle of things that appear to us indifferent is very much more limited and abnormal than it seems at first glance.

Not only is everything both a fact and a value, but also the order of things, the universe itself, is on the one hand fact, on the other value. There are, then, two different orders: the factual and the valuational.

> We perceive objects, we compare and analyze them, we add them, order them, and classify them. Investigating their mutual relations we chain

> them together in series of causes and effects, series which in their turn are reciprocally articulate, forming the structure of the universe, unlimited in space and in perpetual flux in the course of time. But these same objects, organized in a world according to what they are or are not, are also organized, without abandoning their spatio-temporal position and condition, in a universal but distinct structure for which it is not decisive what each thing is or is not, but what it is worth or is not worth, is worth more or worth less. We do not content ourselves, then, in perceiving, analyzing, ordering, and explicating things according to their being but we esteem them or disesteem them, prefer them or defer them, in sum, value them. And if as objects they appear to us offered in the spatio-temporal series of cause and effect, as values they appear arranged in a very wide hierarchy constituted by a perspective of valuational features.

For Ortega, as for formal axiology,[4] two worlds exist, the world of fact and the world of value. "If by world we understand the unitary ordering of objects we have two worlds, two distinct but complementary orderings: the world of being and the world of value. The constitution of the one lacks validity in that of the other." Thinking has to distinguish and to keep separate the two worlds; otherwise it commits the metaphysical fallacy.

Each of these worlds has its own language.

> In the popular vocabulary there are words that refer especially and exclusively to the world of value: *good* and *bad*, *better* and *worse, valuable* and *worthless, precious* and *cheap*, *estimable*, *preferable*, and so on. Although this valuational language is quite rich, it forms a hardly perceptible corner of estimative meanings.

The language of value is very much richer than the realm of these words. What then, he asks, is the difference between ordinary and value language? Unfortunately, he is not much clearer about this difference than the value philosophers he castigates. Previously, he said that the character of value is "rare and subtle," and he now says that the causes of this difference are so deep that he cannot discourse about them in his essay. The same thing happens here that happens in all philosophies of value, with the possible exception of G. E. Moore: the exact essence of value, the problem, is postponed for the next occasion, and that occasion never arrives.[5] No essay by Ortega y Gasset delves into these deep causes, and, actually, Ortega despaired of his incapacity for precision in this vital matter.

Perhaps it is as unnecessary to examine these deep causes in the science of axiology as it was unnecessary in natural science to inquire into the causes of phenomena. Newton did not examine the causes of gravitation; he was content with the phenomenon. The *why* did not interest him, only the *what*

and the *how*. The core of value is revealed in value language; for understanding value it is not necessary to go back to why this is the case; it is enough to know *that* and *how* it is so. Precisely by abstracting from the causes of the difference between valuational and factual language, and by concentrating his attention on this very difference, Ortega does come very close to the essence of value, almost as close as G. E. Moore.

> For deep reasons (*causas*), about which it is not possible to discourse in this essay, there exists in language the economic tendency to express value phenomena by way of a halo of complementary meaning that surrounds the primary realistic meaning of the word. Thus the word 'noble,' in phrases such as 'noble action,' 'noble character,' signifies primarily a certain actual constitution of some external or internal movements of the person, or a certain constant predisposition which the soul of an individual actually possesses. This primary significance, then, refers to actual things or qualities, just as the word 'red' refers to this chromatic quality which I am now seeing. But it would be wrong to assert that this fully satisfies the meaning of 'noble.' When I say *red* I refer exclusively to the color having this name; but when I say 'noble action' I do not limit myself to naming a certain class of definite acts but give to understand, *en passant* or complementarily, that this class of definite acts has a positive value as against the negative value which another class of definite acts have which I call 'abject.' And if we would insist in our analysis of what we understand by the word 'noble' within axiology, we would note that we do not merely declare that such acts have any positive value *in general*—for by qualifying an action as 'useful,' we also attribute a positive value even though one very different from the value 'nobility.' By 'noble' we understand then a definite positive value. In the same way, the words 'generous,' 'inelegant,' 'crude,' 'weak,' and 'vulgar' signify at the same time realities and values. And, what is more, if one would make an exploration of the dictionary with an intent to assemble all words of completely axiological meaning one would be astonished at the fabulous rhapsody of value characters and aspects there are in everyday language.

Ortega y Gasset here puts his finger on the central point of axiology, *the axiological relation*: the difference between ordinary and value language, and the double meaning of value words which do imply, in some way, a real or factual meaning. The question is: precisely what *is* this double nature of value words? G. E. Moore, in most exact terms, has shown this character of value words; but he has not broken through to their exact logical significance. Ortega y Gasset approaches almost as close to the logical essence of value as G. E. Moore. What, he asks "with some rigor and urgency," are these values?

He begins to answer the question, clarifying what Moore calls the "naturalistic fallacy."

The title of the first section of Ortega's essay is: "Values Are Not Agreeable Things"; that of the second is: "Values Are Not Desired Or Desirable Things." The idea that a thing is valuable when it pleases and in the degree to which it does, he says, is the first that occurs to us when we think of value. The first and most primitive consideration about value comes to the conclusion that the valuable is the pleasing. G. E. Moore also says that pleasure is the first conclusion at which a person arrives who begins to reflect on ethics.

> Hedonism is, for a sufficiently obvious reason, the first conclusion at which anyone who begins to reflect upon Ethics naturally arrives. It is very easy to notice the fact that we are pleased with things....But it is comparatively difficult to distinguish the fact that we *approve* a thing from the fact that we are pleased with it. It is very difficult to see that by 'approving' of a thing we mean *feeling that it has a certain* predicate—the predicate, namely, which defines the peculiar sphere of ethics.[6]

Moore calls hedonism "a vulgar error." Another writer, J. V. Langmead Casserley, says that this type of theory will "attract intelligent and good-natured men who lack acute ethical perception and profound moral experience."[7]

Ortega y Gasset is more generous than these two authors in discussing hedonism, especially in the form of the Austrian axiological school, represented by Alexius Meinong. For Meinong, value is the complexion that the subject's sentiments of pleasure and displeasure throw over the object. Things are not in themselves valuable; every value originates in a previous valuation, and this consists in a conception of worth which the subject puts into things according to the pleasure or displeasure they cause her or him. This view commits both the moral and the naturalistic fallacy, confusing value in general with psychological value, and psychological value with ethical value. Thus, just as Ionian ontology was physiology, Viennese ethics and all ethics following it was psychology. Ortega y Gasset shows the invalidity of this subjective view of value which, in its ultimate conclusion, leads to positivism—the "Vienna Circle"—where value is nothing but a "hole." As Ortega says,

> Perhaps this view presents with the greatest clarity the error of positivism, namely, in spite of its title and aspiration—to be a philosophy of pure facts, of phenomena—always to begin by disregarding the phenomenon that it would like to explain. For it is a positive fact that, at the moment of valuing something as good, *we do not see goodness projected upon the object by our feeling of pleasure but on the contrary as coming, as imposing itself upon us, from the object*....It is fit to speak of

> more or less clarity in the seen, but not of more or less intensity in the 'seeing.'

Ortega y Gasset's argument, similar to G. E. Moore's on "intuition," may not be entirely correct; "more or less clarity in the seen" may, and perhaps must, be combined with "more or less intensity in the seeing." Yet, it certainly is correct that a distinction must be made between the psychological intensity accompanying a value and the value itself. "All these considerations," he says, "move us to separate value from feelings, acts or appetites, which, it is true, always go together in our soul with valuation, motivated or awakened, stimulated or repressed by it, but which are not the same as valuation." He thus warns against the same confusion of emotion and value that we find in the emotivists and which, according to Nicolai Hartmann, is the fundamental confusion between *Gefühl* and *Wettgefühl*. The second is no more "feeling" than is, say, musicality. [8]

Ortega begins the positive discussion of value in his third section entitled: "Values Are Something Objective and Not Subjective." Like John Dewey, he begins with the equivocal term "desirable." In the first place, "desirable" signifies what Christian von Ehrenfels says—"the possibility of being desired." This is the psychological sense of value we have rejected.

> But in the second place, 'desirable' signifies not being desired now or tomorrow or at some instant by anybody but *deserving* to be desired, *being worthy* of it, even though in fact nobody ever does desire nor, in a way, can desire it. The 'deserving,' the 'being worthy of,' is in this sense a quality of things independent of the acts of pleasure or desire that the subject exercises with respect to these things. The question is then, on the contrary, that of a claim made upon us by the object. As the yellow of the lemon requires us to judge 'that it is yellow and not blue,' thus the goodness of an action and the beauty of a picture appear to us as imperatives from these objects which descend upon us—and in virtue of which our wishes and sentiments acquire a certain character of being adequate or inadequate, correct or erroneous. Exactly for the same reasons that we consider it false to attribute to a white object the quality of black, we consider it an error to react to an object that appears to us as good with a sentiment of antipathy or repulsion.

Indeed, says Ortega with reference to Nicolas Malebranche, values are to such a point objective that not even God can change them. "Dieu *ne pouvant* pas vouloir que les volontés qu'il a créés aiment davantage un moindre bien qu'un plus grand, bien, c'est a dire, qu'elle aiment davantage ce qui est moins aimable que ce qu'est plus aimable."[9] For Malebranche, values

('good,' 'bad') are to such an extent objective that in God himself the possibility of modifying the law or norm of our valuations is excluded.

As does Dewey, so Ortega uses the suffix "*-able*" as a wedge for the objective nature of value. Hidden within this suffix is the purely formal nature of value. The Latin "*-bilis*" originally meant repetition, then generalization, finally universalization. The corresponding German suffix is "*-wert*," as in *begehrenswert*. Ortega writes,

> In the meaning of the 'desirable' as that which is worth being desired, we catch a glimpse, as through a crack,[10] of an entirely new aspect of the problem of value: that aspect where value presents an objective character. Now we may observe that also the 'pleasurable' contains this transcendent meaning. It is pleasant not as that which actually does or may please, but as that which deserves and demands our pleasure. The same is true of the lovable, which is what is worthy of being loved even though we may not love it actually. It is not then our desire or our love, it is no act of the subject whatsoever that *gives* value to a thing. It is impossible to arrive at a sufficient notion of Value while, in looking for it, supposing it is essential for values to be goals of our interests or appetites....Values have their validity before and independently of the way they function as goals of our interests and our sentiments. Many of them are recognized by us without its occurring to us to desire or to enjoy them.

Ortega's clear intuition of the objectivity of values makes him again and again denounce the axiological fallacies, although *ad hoc,* and not within a consistent logical framework.

> It is an even denser error to define values, as does Schwartz in his *Psychology of Will*, 1901, p. 34, by saying: 'We call value all terms mediate or immediate of will.' In this error coincide all those who plant the problem of value exclusively within ethics. Ethics tries to find the principles and norms of voluntary action. Voluntary action consists in setting oneself ends. These ends are good or bad, that is, they are positive or negative values (by themselves, as St. Thomas holds; by the intention or prevision of their consequences, as the utilitarians maintain; by the character of conscience which decides them, as Kant thinks). From all this, to be sure, there is only one step to invert the proposition: Our ends are values hence values are our ends. Always the species trying to absorb the genus!

Always the moral fallacy!

William Shakespeare already knew all this. In *Troilus and Cressida*, when Hector and Troilus are discussing the case of Helen, the poet divides among them the two theories of value, the objectivist and the subjectivist.[11]

> *Hector*. Brother, she is not worth what she doth cost.
> The keeping.
> *Troilus*. What is aught but as 'tis valued?
> *Hector*. But value dwells not in particular will:
> It holds his estimate and dignity
> As well wherein 'tis precious of itself
> As in the prizer.

In the sequence, Hector is more explicit on the moral law:

> *Hector*. Paris and Troilus, you have both said well;
> And on the cause and question now in hand
> Have glozed, but superficially; not much
> Unlike young men, whom Aristotle thought
> Unfit to hear moral philosophy.
> The reasons you allege do more conduce
> To the hot passion of distempered blood
> Than to make up a free determination
> 'Twixt right and wrong; for pleasure and revenge
> Have ears more deaf than adders to the voice
> Of any true decision. Nature craves
> All dues be rendered to their owners. Now
> What nearer debt in all humanity
> Than wife is to the husband? If this law
> Of nature be corrupted through affection,
> And that great minds, of partial indulgence
> To their benumbed wills, resist the same.
> There is a law in each well-ordered nation
> To curb those raging appetites that are
> Most disobedient and refractory.
> If Helen, then, be wife to Sparta's king,
> As it is known she is, these moral laws
> Of nature and of nations speak aloud
> To have her back returned.

On the basis of these correct but frail foundations, Ortega y Gasset concludes: "Value then presents itself to us as an objective consistent character, of positive or negative rank, which the act of valuation recognizes." In other words: *There is value and disvalue, and they are objective.* "To value is not

to give value to that which by itself did not have it; it is to recognize a value evident in the object." Both Ortega and G. E. Moore agree that there *is* value and that it is outside of us. But *what* this value is neither Moore nor Ortega can say.

This section of Ortega's essay does not offer us a characterization of value; it merely affirms that there *is* value, that it is no illusion and no subjective state. In the fourth section, Ortega tries to determine more closely the character of value. The title is: "Values Are Unreal Qualities Residing in Things." The term "unreal" in the sense of "not real" or "not empirical" leads us close to the nature of value.

"Values," says Ortega y Gasset "are...a strange, subtle cast of objectivities which our consciousness encounters outside of itself as it encounters trees and people." When we read in philosophy words such as "strange," "subtle," and "in some way," we always suspect that the author has not achieved clear sight of his subject matter.[12] Yet, the following analysis approximates to the very core of value.

> It is necessary to distinguish values from the things that have value. Things have or do not have value, they have positive or negative value, higher or lower value, value of this kind or of that kind. Value, then, is never a thing but is had by a thing. Beauty is not the picture but the picture is beautiful, contains or possesses the value beauty. In the same way the elegant suit is a valuable thing, that is to say, a reality in which resides a determined value: elegance. Values present themselves as qualities of thing.

The question Ortega y Gasset then puts to himself is to know what kind of qualities they are, and here he comes even closer to the analysis of G. E. Moore.

> Let us look in the elegant suit, with these our eyes, for this elegance. Vain search. We see its color, its form, which are real ingredients of the suit. Its elegance is not visible—it is an unreal quality which does not form part of the physical components of the object.

What Ortega y Gasset here calls an unreal quality, G. E. Moore calls a "non-descriptive" one: the value quality of something is not a quality that is real or descriptive, that is to say, a sense quality of any kind. Yet, it *is* a quality, and since it is known what it is *not* rather than what it is, it must be determined by limitations: it is a non-real or non-descriptive quality. This is the furthest point that philosophical value cognition has reached, and the task of scientific axiology is to determine positively what this unreal or non-descriptive quality is. Already at this point it is clear that the value quality, not being

perceived by the senses, can only he grasped intellectually. This quality, says Ortega, "*resides in*" the real qualities; Moore says that it depends *entirely on* the descriptive qualities. But what exactly is this residing or this dependence is precisely the question that only a formal axiology can resolve.

Like Plato, who is equally close to the essence of value without knowing exactly its systematic import, Ortega y Gasset has to speak in terms of myth. He gives a profound interpretation of Anderson's fairy tale, "The Emperor's Clothes." The elegant invisible suit of the emperor is the pure quality of value without the sub-strata of the real properties.

> One will say that an invisible suit like the kind in the fairy tale cannot be elegant, that elegance is an attribute ascribed to a certain form and color which a dress has. In truth, the elegance *is* the invisible value that resides in the visible lines and coloration of the suit; it is the unique worth that belongs to these real forms. But the worth itself escapes physical vision.

In other words, value is an intellectual property; it is not a physical thing. It is a synthetic *a priori*, like Kant's empirical thing that can be perceived, but the object character of which is an intellectual construction. As explained previously, the systematic framework that makes value *a priori* is precisely the logic of the descriptive properties on which it thus depends.

This then, is the essence of value. Value is not an actual property of a thing, but it depends on these actual properties in a definite logical manner. The relation between the property of value and the factual properties, then, is a logical relation, precisely the relation that gives value its systematic import. Both G. E. Moore and Ortega y Gasset knew that this relation is logical; but they did not know what kind of logical relation it is. Their concept of value, therefore, even though it is very close to having systematic import, does not have it. The word "value" is for them no more than a word designating a very clear intuition, but still only an intuition. It is something given in a more or less mystical manner, even though Ortega, like Moore and the phenomenologists, considers the reality he intuits so certain as not to be mysterious.

> Will it then not be said that these values are mysterious natures which, like Platonic ideas, escape our sublunar vision and inhabit a super-celestial place? Not at all. Values are not things, they are not realities; but the world of objects—even excluding all pseudo-real mysticism—does not consist only of things. A number is not a thing, but it is indubitably an object, as clearly and even more clearly than any thing.

Here Ortega y Gasset, in comparing values and numbers, states the *formal nature of value*: values are logical entities, as are numbers. But since he

does not know what kind of logical entities they are, it is all but mystical to say what he says. The same mystical insight is found in the axiologies of Plato and G. E. Moore.[13] Yet, the perspicacity of Ortega y Gasset is truly clairvoyant. Value, he tells us, is a property such as similarity, equality, and similar proportions which cannot be perceived with the senses either, but can be seen intellectually.

> A simple classification of the qualities which things have puts us on the secure route to comprehend the lineage of those objects which are values. Things have certain proper qualities, qualities, that is, they possess for themselves independently of their relations to other things. Thus, the color and form of the orange are qualities it has even though it were alone in the world. But when this orange is equal to another it has a new quality, equality, which is as much its own as its color and form; only that it does not have equality when it is alone, but when it is compared to another and put in relation with it. It is then not a proper quality but a *relative quality*. Of this type are identities, similarities, larger or smaller, *etc.* Well then, it is characteristic of these relative qualities not to be visible to our eyes. When we see two *equal* oranges we see two oranges but not their equality. The equality presupposes a comparison, and the comparison is not a work of the eyes but of the intellect. Yet, after the comparison, equality is obvious to us with an evidence equal to the visual. We can say that "we see" the equality with a non-ocular but an *intellectual* sight. This intellection, this understanding, is a perception of the same genus as the visual but of another species. Without it we could not say that "two and two is equal to four."

This then is the conclusion at which Ortega y Gasset's insight and penetration into the essence of value arrives. Value is a non-sensible quality *sui generis*, self-evident, like a logical relation.

What it is in detail he does not tell, but what he does tell helps us to draw further conclusions: "The eye sees color but it does not see sound. Number is not seen nor heard but it is understood as is equality, similarity, *etc.* There is a perception of the unreal which is neither more nor less mystical than the sensual." This is true only under one condition: that we have the intellectual tool to understand it. Sensual perceptions can be measured, elaborated, and explained by observation. The direct perception of number is developed and systematized in mathematics. As long as mathematical explanations were not available, numbers were "mystical," as during the time of Pythagoras, and as was the "imaginary" number that Gauss explained, by the unit circle, as an angle of 90°. The immediate perception of value is mystical in this same sense and will remain so unless and until there is a framework, a formal axiology, that develops and systematizes it. The "mystical" is merely

the unknown divined; once known it loses its mystique and becomes an everyday tool.

In this respect a difference exists between the conception of value of Plato, Nicolai Hartmann, and other value realists, and that of Ortega y Gasset. Ortega does not attribute to his values the value the realists attributed to theirs; he takes them more soberly. He does not hypostatize them but puts them in their exact place: the logic of formal relations. Actually, his account of the proper and relative qualities of things gives the exact logical explanation that formal axiology elaborates. The color and form of the orange, which the orange has even if it were alone in this world, are qualities it has in itself and are parts of its *intrinsic* value—as developed by G. E. Moore, and logically interpreted by formal axiology. In the *comparison* of one orange with another we have *extrinsic* value, which is also based on a simple and known logical relation, namely that of class membership. Value is thus precisely what Ortega y Gasset says it is, only, he does not say it with precision. His position with respect to formal axiology is thus very similar to that of Moore: his thought leads focally into the new science. From the point of view of this science, he conforms to Alfred North Whitehead's words: "Everything important has been said before by someone who did not know he was saying it."

Ortega y Gasset's conclusion that "values are a peculiar kind of unreal objects which reside in real objects or things as qualities *sui generis*" shows, in the words "*sui generis*," his uncertainty about the nature of values. Since he does not see clearly enough that they *are* logical relations, and hence cannot make the necessary axiomatic *identification* that *defines them as* such relations, he has to cast about for some other explanatory form. Not finding it, in the end he must run aground, as does Theodor Lessing for the very same reason.

Actually, value qualities are not "*sui generis*" but qualities well known in logic, namely second-order functions, predicates of sets of predicates. Value properties characterize the set of the actual or descriptive properties of things *as a set*. The property of the *totality* of the set is the property "good." Other value properties are additional logical properties of the set. This is all the mystery there is to these properties.

This kind of logical property, of course, "cannot be seen with the eyes such as colors"; so, thus far, Ortega is right. But he next begins to go off course: "Neither," he says, "can they be understood as can numbers or concepts." Here he commits both the naturalistic fallacy and the fallacy of method. He believes that values by their essence must be *felt*; and he confuses this feeling of value both with psychological feeling and with the explanation of this feeling. Although Ortega sometimes says that the intuition of value is psychological, he is usually clear about the necessity to distinguish the psychological accompaniments of value from value itself. The intuition of value, then, may be said to be phenomenological rather than psychological, an intu-

ition *sui generis*. But this does not mean it cannot be as clearly explained as number or concept. "The beauty of a statue, the justice of an act, the grace of a feminine profile are not things which it is fitting to understand or not to understand. It is only fitting to 'feel' them, or rather, to estimate or dis-estimate them." Unlike G. E. Moore, who never despaired of a possible knowledge of values, Ortega y Gasset made his own lack of such knowledge an epistemological necessity. Actually, values *can* be understood. The assertion that they cannot is the result of ignorance rather than of the proper nature of value.

The logical understanding of value leads to the axiometric structure of logical intensions[14] and thus to the legitimate role of mathematics within axiology. Ortega y Gasset divines such a role for mathematics; the fifth and sixth sections of his essay are entitled: "The Knowledge of Values is Absolute and Quasi Mathematical" and "Dimensions of Value." Unfortunately, instead of raising value knowledge to mathematical clarity, he lowers mathematics to the vagueness of his knowledge of value. Thus, he commits the same transposition we examined in preceding chapters, the application of a synthetic formal frame of reference to analytic material not prepared for such application.

In spite of this, these sections of Ortega's discussion contain a richness of profound ideas about value. He is here in the great tradition of axiology that began with Plato. From the fact that "each thing around the set (*repertorio*) of qualities which it has and which make it such a being, has a halo of value qualities which define its value profile," Ortega infers "something of the greatest importance."

> The perception of the thing as such and the perception of its values are produced with great independence one from the other. What I mean is that sometimes we see very well a thing and yet do not 'see' its values. Example: for three hundred years one has looked at the pictures of *El Greco* without discovering their peculiar aesthetic quality. At other times, inversely, we have the clear consciousness of certain values without the necessity of 'seeing' them realized in anything. In artistic creation this relation of value is the normal thing. The artist usually starts with the intuition of certain values which a picture or a poem must have and only then encounters the actual characters—forms, images, rhythms —in which they are incorporated. When Raphael was asked what it was that he was copying in his pictures, he responded: '*una certa idea che mi vien in mente*.' This previous idea was first a pure organism of value: *grazzia* of lines, equilibrium, architecture, a sweet gloss of forms, *etc.*

The relation between the real and the unreal qualities is developed in further detail:

> Let us be very clear about the conclusion to which this statement leads. Every value, by having the character of a quality, requires to be referred to some concrete thing. Whiteness will always be the whiteness of something, goodness the goodness of someone. But occasionally we see the quality without recognizing very well its substratum, the thing or person that possesses it. On the excited surface of the sea we may distinguish a whiteness but do not know whether it belongs to a sail, a rock, or the far off foam. In the case of values the independence is greater. 'We feel' with perfect clarity perfect justice without up to now knowing what actual situation could realize it without residue.

If we knew the logical form of value in general we would also know the systematic nature of this particular aspect of it, its "independence." The logic of it seems to be that of the metaphor. The metaphor is a set of properties that has no determined reference or extension but has an intension totally independent of the qualities of any object to which it refers.[15] Ortega y Gasset has to feel his way toward these logical relations through more or less picturesque everyday language.

> Things, realities, are by nature opaque to our perception. There is no way in which we might see the whole of an apple; we have to go around it, open it, divide it, and we will never arrive at perceiving it integrally in its totality. Our experience of it will always be approximate but never perfect. On the other hand, the unreal, a number, a triangle, a concept, a value—are *transparent* natures. We see them, if we see them at all, at once in their completeness. Successive meditations will give us more detailed ideas of them, but from the first vision they give themselves to us in their total structure. All our later mental labor is based on this first vision....Our experience of number, of geometrical body, of value is then absolute. Hence metaphysics is a science *a priori* of absolute truths. *The science of values, then, will itself be a system of evident and invariable truths, similar to mathematics.*

Recall that earlier Ortega said that values confront our perception with the same resistance as concrete things. Here we have the vision of formal axiology. Ortega y Gasset not only projects this science but also distinguishes between the science itself and its application. He thus implies the possibility of the fallacy of method.

> Notice that I speak strictly of the knowledge of values. The question of whether an actual thing does or does not have the value we attribute to, or presuppose in it, permits only empirical and approximate solutions. In

> the same way, our knowledge of the triangle is absolute but not the fact that an actual body is or is not rigorously triangular.

Ortega is recognizing clearly that axiology is a definite and a formal science:

> It may sound strange to many but I hope continued reflection will make them recognize the inevitable conclusion. The sentence *de gustibus non-disputandum* is a crass error. It supposes that in the realm of 'tastes,' that is, of valuation, there exist no evident objectivities to which our disputes can be referred as ultimate recourse. The truth is the opposite: every 'taste' of ours tastes a value (pure things give no possibility for taste or distaste), and every value is an object independent of our moods.

Here we see with what consistency Ortega draws the consequences of his fundamental intuition that there is a world of values by the side of the world of facts and that this world of values is independent of the world of facts and absolute.

Of the detailed qualities of value Ortega y Gasset only knows what is obvious and what can be known without the systematic import of a system of axiology. In the sixth section, he assigns three dimensions to value: its quality, either positive or negative; its rank, either of superiority or inferiority; and its matter, the "ultimate estimative contexture irreducible to any other determination."

What consistently and in detail these three dimensions signify he cannot say. The task and the achievement of formal axiology are not only to define these dimensions but to interrelate them in a systematic manner. Ortega y Gasset has to content himself with some suggestions made at random. He says with respect to *quality* and *rank* of value: "Elegance is a positive value—as against the negative inelegance—but at the same time it is inferior to moral goodness and to beauty." Why this is so he does not tell us, but "The certainty of this subordination is not less firm than the certainty we feel when we affirm that four is less than five, and it is moreover of the same type." He is absolutely right, but only in the light of formal axiology, which can present these relations with logical certainty.

"In the last instance," he continues, "mathematical truth refers us to intuition and intellection of numbers. It is enough to understand well what is five and what is four to make it evident that four is smaller than five." This obviously simplifies mathematics somewhat. The relation between four and five is not a business of intuition but of definition within an axiomatic system. He continues: "It is sufficient also to 'see' well what is 'elegance' and what is 'moral goodness' in order that the former appear as objectively inferior to the latter." As is seen, the analogy between Ortegian axiology and mathematics

requires imperatively the systematization of axiology. Instead, Ortega y Gasset simplifies mathematics in an illegitimate manner. He commits the same error as the positivists against whom he polemizes. They, instead of amplifying logic so that it can explain value, negate value because it does not fit into the simple logic they employ. Ortega y Gasset, because he does not know the axiological system, simplifies mathematics, and thus instead of amplifying axiology in the axiomatic manner of mathematical logic, he cuts mathematics to the measure of his valuational ignorance.

Neither can he tell us what is the *matter* of value:

> The fact that elegance is unique in itself, different from justice, or beauty, or utility, or skill, *etc.*, cannot be defined, just as the color red cannot be defined, nor such and such a sound. Our awareness of it can only consist in a direct, immediate perception.

Even though Ortega gives us certain characteristics of value, and more accurately than other axiologists, in the last resort the same must be said of his axiology as he says of Friedrich Nietzsche: he refers to indefinite words just when all other concepts seem to be unservable for understanding certain phenomena. The word "intuition" plays in Ortega's axiology about the same role as the word "value," according to Ortega, plays in Nietzsche.

Another such word is the "matter" of value. It is not very helpful to the knowledge of value to be told that every value has its differential matter and that it is not merely formal, which, according to Ortega, was "the great discovery of Max Scheler." The word "matter" plays no other role in Ortegian axiology than the word "substance" in traditional metaphysics and signifies no more than what the verb "to be" signifies. Scheler, like Ortega, saw the region of value, but he has just as little succeeded in differentiating it. Both Scheler and Ortega commit the fallacy of method, fusing axiological value with some matter or substance that this value exhibits.

Actually, the "matter" of value is a matter of the application of its formal essence to certain given data. "Elegance," for example, is aesthetic value applied to garments and the like. Apples cannot be "elegant." Aesthetic value is defined in formal axiology as intrinsic value applied to things, and intrinsic value is the fulfillment of a non-denumerably infinite intension. The "matter" of value is rooted in the systematic-empirical import of the formal system of value. This specifies certain of its forms, and these, applied to specific data, bring about certain definite kinds of value, such as elegance, skill, and beauty.

Ortega y Gasset, not knowing the formal definition of value, says that "The definition of values can only be made, as that of colors, by indirect means." Here he compares value with color, as did G. E. Moore, in spite of the fact that he earlier contrasted value with color, color being a real quality and value an unreal quality. Orange, he says,

> can be defined indirectly by saying that it is a color situated in the spectrum between red and yellow. Similarly, it is fitting to reduce values to a concept determining the set of objects in which they reside and the type of subjective reactions that are adequate to them.

Here again he commits the same fallacy he commits in the analogy with mathematics, that of confusing the analytic and the synthetic. Color can be defined in the spectrum with exactness because the spectrum is part of a systematic net, namely that of optics. No similarity with the definition of value exists unless we have a systematic net for the region of value as well. The exact analogy with color would be that color can be defined by "determining the set of objects in which they reside and the type of subjective reactions that are adequate to them." It is, to paraphrase Ortega, "extraordinarily strange" that in the philosophy of value errors as obvious as this can be committed.

Ortega then asks: "What class of objects can serve as substrata or support of the value 'moral'?" He should ask the same of color: "What class of objects can serve as substrata or support for the color 'red'?" He then would have to say that indirectly defining the color red would be enumerating the objects that can be red, and that some objects, for example numbers, cannot have color. He proceeds in this manner to "define indirectly" the value "moral goodness." "Evidently we cannot say in a formal sense that a stone or a plant are good. Only a being capable of action can be morally good, that is to say, a subject causing its acts. This is what we call 'person.'"

Ortega gives us an extensional rather than an intensional definition of "moral goodness." This presupposes a knowledge of what that goodness is, and why it is only applicable to persons. Formal axiology presupposes nothing and *defines* moral goodness as intrinsic value applied to persons (just as it *defines* social value as extrinsic value applied to persons). "Person," in formal axiology, is defined as "that being which has its own definition of itself within itself."[16] Moral value, then is a specific and exactly defined application of the value system, just as physics is a specific and exactly defined application of the number system. Ortega cannot proceed in this manner because he lacks a formal system of valuation. He continues, writing that "There are then excluded as substrata of this kind of value all physical objects and all animate objects who lack will. But an imaginary person, the person of the novel, is not properly called good but only fictitiously so." Again, he touches on a vital subject, one developed in more detail by Luis Recaséns Siches. A legal person, too, is an imaginary, a fictitious person, so a state, a nation, or a corporation cannot morally be either good or bad. Moral value is a matter of individual persons. Hence, the correctness of the Nuremberg judgments, which made individuals responsible for the crimes of Nazi Germany, and the profound scruples of Americans asked to perform similar acts in Vietnam. In formal

axiology, the same follows, but by the systematic definitions of intrinsic value as against systemic value, rather than by "self-evidence."

Ortega is equally clear and definite with respect to aesthetic value, but equally "intuitive." He says,

> 'Beautiful' can be landscapes, rocks, plants, and animals, and they can be so in the full sense of the word even though they may be imaginary. A painted landscape can be beautiful not only as a real painting but also as that imaginary landscape. The value 'beauty,' which strictly is the generic term of innumerable values, is then not conditioned by the existence of its object, as is the case with moral values or those of utility.

But with what justification does Ortega assert this? Why can the imaginary be beautiful but not good? In what exactly consists the beauty of an imaginary landscape? Questions like these can only be resolved when either intuition has reached uttermost precision or when an axiological frame of reference *define*s aesthetic value. In formal axiology, this definition is "the application of intrinsic value to things." From this it follows that in painting a landscape, neither the painting nor the landscape can be isolated. Both form the aesthetic value precisely as *this painting of this landscape*, as this sensory transfinite organic whole.[17]

The second means for indirectly defining value appeals to the type of subjective reactions that are adequate to it. The corresponding definition of color, for example, would be a psychology of color. While this has its significance, as in psychological tests or subliminal responses, it would hardly be an *aesthetic* definition; rather it would commit the naturalistic fallacy. The realm of color could be used as an analogue for that of value, as is done suggestively by Raymond Ruyer.[18] Ortega himself does not follow up his own comparison between color and value. He considers the feeling reactions only with respect to *values*.

> To beauty corresponds pleasure and enthusiasm but not respect....Admiration is a feeling which corresponds more to the creation of a work than to the work....The good act cannot be directly subject to pleasure but to respect. Respect is the emotion congruent to virtue. Utility...is a kind of value before which a feeling of respect and pleasure is unfitting. The end which the useful achieves arouses, perhaps, pleasure, but the useful itself only provokes a peculiar emotion of satisfaction, a feeling without temperature, very fitting to the rational, frigid character of the value 'utility' itself, *etc.*

All these are indeed observations pertinent to a science of axiological psychology. But, as they stand in the essay, they are no more than suggestions

without any interrelation with the rest of the work. Again, what is missing is systematic import.

The same is true in the seventh and last section of the essay entitled "Classes of Values." Of Ortega's list of values the same may be said that Kant says of the Aristotelian list of categories; it is a rhapsody rather than an architectonic whole. Ortega is himself not satisfied with this list. Its purpose is only to give some clearer view of what values are. "The problem of the classification of values would require very concrete observations." His table of positive and negative values presents the following six kinds of value, and representative instances:

> *Utility values*: capable, incapable, expensive, cheap, abundant, scarce;
> *Vital values*: sane, insane, healthy, sick, select, vulgar, energetic, inert, strong, weak;
> *Spiritual values*: intellectual, knowledge, error, exact, approximate;
> *Moral* values: Good, bad, kind, evil, just, unjust;
> *Aesthetic values*: beautiful, gracious, crude, elegant, inelegant;
> *Religious values*: holy, profane, divine, demoniac.

As the comparison of this table with the corresponding table in formal axiology shows,[19] without an axiomatic system the classification of values has no systematic import. The kinds of value are as rich as, or richer than, value language. With reference to value language, Ortega said, "The fabulous abundance of its characters and aspects would be truly astonishing." He could say the same of the classification of values. As the classification of the expressions of value language is only possible within a systematic framework, so the classification of the values themselves is possible only within an axiological system capable of ordering the tremendous variety of the world of value. This Ortega does not give us, but he does lead us close to the intellectual comprehension of value. Even though he did not reach the goal of his essay and did not obtain a clear notion of what value is, he led us to the very door of this notion, that is, to formal axiology.

Ortega y Gasset was explicit on the great value of his vision of a scientific axiology, not only for ethics and aesthetics, but also for history and other social and human disciplines.

> We have to get used to the idea that the fauna and flora of valuation are no less rich than those of nature. The qualities of value are as innumerable as the physical ones. Man is going to experience both kinds increasingly throughout his long history. One of the most suggestive investigations which the new theory inspires is the reconstruction of history as a process of the discovery of values. Each race, each epoch seems to have had a peculiar sensitivity for certain kinds of values and

> suffered...a strange blindness for others. This challenges us to determine the value profile of peoples and of great historical periods. Each would be distinguished by a typical system of valuation, the ultimate secret of its character, of which external events would be mere emanation and consequence.
>
> Thus, it would be extremely interesting to study from this point of view the great figures whose work and genius has been the invention of values—Buddha, Christ, Saint Francis of Assisi, Machiavelli, Napoleon. And those other sovereign spirits who were not specifically 'practical' men—religious, moral, or political leaders—but who discovered new universes of value never before imagined: Michelangelo, Cervantes, Goya, Dostoyevski, Stehdhal.
>
> All this and a thousand attractive questions more which the incredible fertility of the great subject 'value' suggests would constitute the historical counterpart to axiology or the science of value, whose laws are as perfectly evident as those of geometry. The regions of taste and of feeling, which during the last centuries have been abandoned to caprice, are about to be subjected by man to vigorous systematization. Ethics, aesthetics, jurisprudence, are entering into a new phase of their history.

Ortega y Gasset was one of the predecessors of this new phase, the new value science, and had a vision of the new world. He can be compared to Francis Bacon or Giordano Bruno in the field of natural science. He had the vision even though he lacked the method; he did not see the road but he saw its destination, which he formulated in the words of Auguste Comte at the end of his essay: "To put in order again the life of man: a systematization of feeling."

2. The Situational Reality of Value

The problems Ortega y Gasset defined so clearly and left to posterity to solve are the following. *What exactly is the nature of the genus value, its quality* sui generis*? And how does it serve to order value reality*? How, in other words, can the unreality of value be structured and differentiated in such a manner that value becomes intellectually understandable, and this understanding becomes practically fruitful? How, to be exact, can the knowledge of value determine the value nature of actual situations and, inversely, the value nature of these situations the knowledge of value? In a word, how can value knowledge and value reality be joined in one unity?

One path toward this goal might be trying to combine the unreality of value with the reality of value situations. This was undertaken by Risieri Frondizi[20] who carries the Ortegian question one step further to its solution. Frondizi's attempt is doomed to failure because the unreality of value cannot

be coupled with the reality of value situations; but his approach, rightly understood, leads a step beyond Ortega, toward the *formal reality* of value.

Frondizi's work represents the bridge between Ortega's "unreality" of value and the *formal reality* of value. The latter, in the isomorphism of value system and value reality, represents the goal of Ortega's quest.

Frondizi maintains the Ortegian thesis: values are non-real qualities—neither material nor ideal—that do not add reality to objects, as do both primary and secondary qualities. They are qualities *sui generis* that add only *value*. Numbers, triangles, concepts are ideal entities; values are not. But all four are non-real.[21]

Frondizi finds the value quality in the polar structure of value situations, the subject and the object of valuation. He examines various experiences of value showing the complexity of their three components—value, the valuer, and valuation. But it is not immediately apparent in what way these three components, *factually* analyzed, are converted into *valuational* components. What makes valuational an object of value, and even its valuation? For example, although pleasure is experienced while drinking a glass of beer, what the objective value of the beer consists of is not clear; neither is the justification for calling pleasure a *value*.

If neither subjectivism nor objectivism offers a criterion of value, a subjective element of the situation such as pleasure should not be called "value" unless the valuational criterion has been established beforehand as *a definitive criterion of the situation*. This criterion, *X*, should not only make pleasure valuational, but also beer. But what makes the beer valuational and gives it objective value? Frondizi says,

> There is beer and beer, to be judged by their physiochemical constitution. If the density, the temperature, *etc.*, is altered, the sensation of pleasure will be different. Other objective elements are equally influential—the glass from which it is drunk, the temperature of the physical environment in which one finds oneself, *etc.*[22]

All these qualities are factual; they describe facts. In what way do they become values? According to Frondizi, any change in the configuration of these facts makes the sensation of pleasure different. The axiological problem of this sensation is, then, how to make the transition to the realm of value with two things that are not *prima facie* values, such as the pleasure of drinking and the circumstantial characteristics connected with it, including social and cultural factors ("Drinking a glass of beer with a friend is not the same as with an enemy"). The fundamental problem is: how do two non-axiological things form one axiological thing? According to Frondizi, "Although value may not be derived exclusively from factual elements, neither can it be divorced entirely from reality."[23] So, how can the *reality* of the experience

transform itself into the *nonreality* of value? What is the relation *between the reality of the situation of valuing and the nonreality of value*?

In G. E. Moore's terms, the question is formulated thus: how can the complex configuration of a natural experience give rise to a non-natural experience? In Frondizi's terms, the question concerns the way in which the reality of the experience can lead to the creation of: a) the reality of the experience of the nonreality of value, or, b) the nonreality of the experience of the nonreality of value. The axiological problem, in Frondizi's terms, consists in explaining exactly the relation between the reality of the experience and the nonreality of its value. All of the elements of the "valuation" situation are real elements—natural—both on the side of the subject and on the side of the object.

> There are qualities in the object which make me react in a definite way. The aggregate of objective qualities of a painting, capable of causing a definite aesthetic feeling in this case does not appear in isolated form: the painting has a frame, it is hung on a wall which is part of a building. The size, color, and form of the frame, just as the color and size of the wall, the position of the painting in the room, *etc.*, constitute part of the objective qualities.[24]

All these are real and natural qualities of fact. What in them causes my *aesthetic* emotion and defines the *aesthetic* character of my feeling? "We can enhance or reduce the value of a painting by changing the objective conditions which surround it,"[25] such as the lighting, the temperature of the room, its size, and so on. Are these the "objective qualities which give the great works of art their lasting value?"[26] Obviously, *aesthetic* qualities that are not identical with these *real* qualities must exist—the nonreal qualities which, according to Frondizi, are values. But what are these qualities, and what is their relation to the objective qualities listed? To this point, Frondizi only gives the depository of value, that is, its objective matrix; but he does not give either the properties of value itself or the relation of these properties to the depository.

Following up on Frondizi's analysis, we can go a step further. He tells us that the set of natural, that is objective and subjective qualities, produces value, and even more, *constitutes value*. This is an exceedingly important assertion. It should be further developed, but such a development would lead to an area that the author explicitly closed off from his own investigation, namely, logic and methodology.[27] For the axiological problem then reduces itself to: *What is the relation between a whole and its parts?* This is a logical problem. More specifically: What does it mean, axiologically, that the transition from the parts to the whole produces value, both in the parts and in the whole, or in the parts *of* the whole? This question, which necessarily follows

from Frondizi's argument, carries us beyond the field of material axiology to formal axiology, which does not deal with specific situations, but with the *concept of* situation as such, defined as a set of elements, that is, as a *logical* entity. From such a formal axiology it follows that the nonreality of value is precisely its *formality*, in the twofold sense of being the form or framework of factual elements, and of being able to be apprehended only by formal considerations. There is *no* difference in the nonreality of numbers, triangles, concepts, and values.

Frondizi's material or situational solution demands a formal supplement. Such a supplement should take the nonreal character of value seriously, and not bury it in the materiality of situations. It should dispense with all the serial characteristics of situations until it arrives at the core of the notion of situation itself: its essential characteristic of being a set of elements. With this notion, axiology rises to a formal level.

Frondizi's solution arrives at the threshold of this conception. "If the name 'situation' is given to a complex of elements of individual, social, cultural, and historical circumstances, we maintain that values have existence and meaning only within a complete and determined situation."[28] Here is the threshold. The questions that now arise—in particular, What is the relation between this intrasituational existence of value and its nonreality"?—can only be answered by an analysis of the pure concept of "situation," and not by an analysis of specific situations, that is, only by formal analysis of "situation" and not by a material analysis of situations.

Frondizi does not effect such an analysis because of an ambivalence in his conception of the "reality" and "nonreality" of value. His first chapter maintains that the fundamental characteristic of value is its nonreality. However, his last chapter does not take this nonreality seriously enough to lift us out of reality. "When we descend from the level of abstractions to that of reality, formal definitions are of little use"[29] for the determination of value. But why descend from the realm of abstraction to that of reality if values are nonreal? The axiological intuition of Max Scheler and Nicolai Hartmann, says Frondizi, is worthless without "the contrast of diverse data among themselves and the analysis of the distinct situations in which they are produced." Only this "will allow us an interpretation in the light of a complete, integral experience."[30] But what is the value of experience without an axiological criterion? With what justification can we characterize such an experience as a *value* experience? Do we not beg the question if we base this characterization on the verbal translation of "experience" as valuational experience, and the transposition of a subjective activity and an object of such activity to mean "valuation" and "value"? Is this not an analogy between "experience" and "valuational experience" rather than an analysis of the *valuational experience as such?* If it is true, as Frondizi maintains, that everything that can be said about experience can also be said about valuational experience, and if both

are totalities, it is imperative for us to *define the difference between the first totality and the second, that is, the difference between the situational totality and the valuational totality.*

Frondizi leads us to the very core of the axiological problem. He extends, historically and critically, Ortega y Gasset's famous question: "What are values?" and takes us one decisive step closer to its answer.

3. The Formal Reality of Value

While Frondizi drowns, as it were, the unreality of value in the waters of empirical reality, Theodor Lessing waters it down to tautologies. He starts, as do Ortega and Frondizi, with the phenomenological uniqueness of value. But structuralization of this axiological essence peters out for lack of that of which in Frondizi there is an excess: valuational materiality. Finally, when Lessing tries to find salvation in what he lacks, it is too late, and the whole enterprise falters. An axiomatic system can have connection with reality only in its axiom, not at any later point of its development. The axiom is like the umbilical cord that nourishes the synthetic system; and without such nourishment from the world for which, in the last resort, it is made, a system dies a premature death. Yet, besides formal axiology, Lessing's is the only sufficiently protracted attempt at a *Wertaxiomatik,* an axiomatic of value, that exists.

As did other initiators of new philosophy, Lessing, too, calls his book "prolegomena."[31] The whole literature of axiology today consists of prolegomena toward an axiology, and the axiology of which they are prolegomena is formal axiology. G. E. Moore calls *Principia Ethica* prolegomena, and so does Charles L. Stevenson his *Ethics and Language.*

Lessing makes clear that axiology is one thing and ethics another. Thus he guards against the moral fallacy. "The connection of axiology with the practical sciences, in particular ethics, was only a historical prejudice."[32] Although the book was written, as the author says "under the force of ethical and psychological thinking, its purpose was to found an eternal axiomatic *more geometrico tractata* which ought to be independent, as is mathematics, of material sciences such as ethics, aesthetics, philosophy of law, economics, and the modern psychology of values."[33] In other words, it ought to be a formal axiology. The object of axiological philosophy ought to be the essence of value, not its *esse, fieri,* or *effici*, its being, becoming, or being caused.[34]

As did Ortega y Gasset, Lessing attacks empirical valuational thinking. When primitive reason recognizes that values are not "facts of life...and that the norms of experience are as little real as are rectangles and triangles then it believes they are nothing."[35] (Compare Moore's "super-naturalistic" fallacy.) The problem of value cannot be resolved by psychological, positivistic, or metaphysical concepts. Even Kant, according to Lessing, committed what we

call the naturalistic fallacy, interpreting value as metaphysical, a "solution dictated by perplexity."[36]

Lessing begins by showing the confusion in the ethics of Kant between moral rules and moral actions, which corresponds to the fallacy of method. Says Lessing, if it is clear that Kant suffers from this confusion or, as I say, this fallacy, then the moral philosopher has the obligation to ask himself what pure axiological rules can be. This leads to "the possibilities of an axiology," that is to say, a "formal or pure" science of value. He uses as the motto of the section a statement by Jules Henri Poincaré affirming that an empirical science is impossible without reference to a world of *a priori*, non-empirical, and constant objects.

> A pure axiology! This 'pure axiology' would be '*transcendental*' *a priori.* It would form the correlate—in the realm of practice—to pure formal logic. Thus there would belong to pure axiology all statements about value which abstract entirely from volition, valuational conduct, and valuation. That is to say, propositions such as the following: If A is a positive value and B is a positive value, $A + B$ is a larger positive value than A and B alone. If a is negative value and b is a negative value $a + b$ are a larger negative value than a and b alone, *etc.* This 'pure axiology' can be called arithmetic of value. At its beginning there must be unconditional, self-evident, intuitive, general axioms. From these then follow, in analogy to mathematics, *demonstrative* value-mathematical propositions. These value-mathematical propositions would be statements in part about the *necessary* form of 'value in general' and in part about the *necessary essence* of value in general.[37]

Here Lessing gives in detail what I call the systematic import of axiology. It is precisely propositions such as these that constitute formal axiology. Lessing is more detailed in his understanding of the question, "What are values?" than Ortega y Gasset, and his intuition of this new science is more elaborate and exact than that of Ortega.

Lessing sees with equal clarity the relation between value arithmetic or formal axiology and actual specific values. "The total sphere of value arithmetic is *a priori* with respect to any kind of actual value discipline. With respect to the 'object' value, one may call it the sphere of merely formal statements."[38] From this pure and formal axiology must be separated the rules of application, which may be called *normative* axiology, in opposition to *theoretical axiology*, and which may be formulated, for example, as "If I have A as a positive value and B as another, I shall reasonably *prefer* $A + B$ both to A alone and to B alone." Lessing here clarifies that preference, even if synthetically seen, is a matter of application and cannot be a part of, let alone the ba-

sis of, theoretical axiology. "If I have *a* as a disvalue and *b* as a disvalue then I shall reasonably avoid $a + b$ more than *a* alone and *b* alone." [39]

Lessing makes it clear that these are rules of applied axiological science in general—formal normative rules—and not rules of any specific applied axiological science—material normative rules, like the rules of the sciences of axiological psychology or ethics.[40] Thus he puts us on guard against both the moral fallacy and the fallacy of method, the distinction both of the relation between axiology and specific axiologies, and between the last and their subject matter.

> He who confuses the study of the object *value* with the study of valuable objects...is in the position of a man who, because he learned arithmetic by counting apples and nuts, assigns the study of arithmetic to botany or who, because there would be no number theory without people who count, confuses the psychology of counting with higher mathematics.

Although Lessing's thinking is very clear on the difference between pure and applied axiology, or pure axiology and its applications, he does not have a system of such an axiology. In this respect his doctrine lacks systematic import as do the other prolegomena to formal axiology. But it contains suggestions that can be considered as profound intuitions of such axiology.

> A pure axiology thus will not contain anything but *a priori* statements of the formal determinations of that which in and by itself is evident as 'value,' without bothering whether this or that 'value' is *willed*; or what concretely is valuable; or in what inheres value; or how value is to be defined. In the same way pure logic does not contain anything but the formal determinations of what is evident as 'truth,' without bothering whether this 'truth' is recognized or known or not; or what materially is true; or in what inheres truth; or how it is to be defined. All self-evident propositions of formal logic ($a = a$; when $a = a$ then a $\neq$ non-*a*, *etc.*) say nothing but constitutive matters of course. Thus any pure value proposition, as any intuitive axiom, must be self-evident.[41]

Not knowing the rules of formal axiology, but feeling his way toward them, Lessing, like Ortega y Gasset, believes that *a priori* axiological rules are *sui generis*. The axiological investigations of value would therefore have to begin about as follows: supposing that there *is* the phenomenon value, what kind of relations can be stated with *a priori* validity in the same way as logical axioms (the laws of contradiction, of identity, and so forth.) can be stated for what we regard as *true*?[42] Then Lessing presents the core questions of all axiology:

> But here appears immediately an obvious objection: are there special formal determinations for 'value in general'? Are they not maybe just modifications of those formal logical laws? Or rules valid for any kind of general manifolds? Is not 'value' carried by a *value judgment* just as truth is carried by a *cognitive judgment*? Are not then the formal determinations implied in the meaning of the objectively true and the objectively valuable both merely laws of correct judgment?[43]

Formal axiology answers this question in the affirmative: the formal rules of value are merely kinds of laws of correct judgment. They are modifications of ordinary logic. Formal axiology applies, precisely, the rules "valid for any kind of general manifold" to logical intensions, arriving thus at normative axiometric structures. Lessing, unfortunately, answers differently and takes a direction that does not permit his profound intuition of formal axiology to be developed. He believes that valuational thinking is so different from ordinary thinking that the same logic cannot be applied to it, that an entirely new logic has to be constructed, an axiologic totally *sui generis.* He does not see that every frame of reference must be logical and that the distinction between value logic and logic as such must be the same as that between mathematics and logic: it must be a species of logic. The only solution to Lessing's problem is to interpret value as a kind of logic, and to obtain a systematic framework by the axiomatic identification of value with an element of logic. An axiologic cannot be constructed without logic. The reason for Lessing's error is that he still thinks of value in terms too material, even though in a very slight manner, he commits the fallacy of method.

Pure axiology, he says, is as formal as formal logic or mathematics; and both these sciences must serve as models for the *a priori* laws of value. But, he maintains, a fundamental difference exists between axiological formality and logical or mathematical formality. "The formal statements about 'value' presuppose 'something' that has value in a totally different way from how the logical or the pure arithmetical laws presuppose that 'something' can be thought or counted."[44] Here he commits the fallacy of method. He ought to have said that formal axiology presupposes other objects, that is, values—which are distinct from those that logic and arithmetic presuppose—propositions and acts of counting. Instead, he says that axiology presupposes its objects in an entirely different manner. He establishes thus a difference between the manner of presupposition rather than between the objects of the two kinds of science.

Lessing makes it clear that pure axiology ought to be completely independent of actual concrete values, that is, of its objects, and that "pure axiology is relatively, that is to say, with respect to any actual axiology, of a formal nature."[45] If Lessing had seen that value could be defined *by logic itself* and the axiom of pure axiology be found by the identification of value with a con-

stituent of logic, he would have seen that there is no difference between the formality of axiology and that of logic or arithmetic. Mathematics also arises by an axiomatic identification of something non-logical, namely numbers, with something non-logical, namely, classes. But this possibility never occurred to him, and he never established the exact analogy between the science of value and that of fact. The creative physicist, even though sometimes he invents his formal laws *ad hoc*, as for example Werner Heisenberg, finds in all such cases that what he invented either was an already developed field of arithmetic—in Heisenberg's case it was Cayley's matrices—or a new field of mathematics, like those opened up by Galileo or Newton.

Thus, even though Lessing polemicizes quite justifiably against Kant, in his own way he commits the same fallacy in believing that value is something so material that pure logic cannot explain it.

> The axiological laws are actually specific laws *toto genere* different from logical laws. They are laws that concern the *objective phenomenon of value* (entirely independent from the actual being or not being of 'value'), laws which being so or being thus therefore cannot be explained exclusively as 'forms of judgment'![46]

Lessing had great difficulty conceiving that there ought to be laws that refer to the objective phenomenon of value and at the same time are independent from the reality of values. He does not see clearly the nature of *axiological science*—a science whose objects are "values" in the same way that the objects of natural science are "facts," and that natural science also is totally independent from, while at the same time applicable to, its objects, and that its judgments are both *a priori* and synthetic. Instead of basing his discussion on the notion of the Kantian synthetic *a priori*, Lessing bases it on the vague Kantian term "transcendental" with which he qualifies his axiology and which carries him down the road of no solution. It can lead to a "pure" and "*a priori*" axiology in the sense of the *Second Critique*, but not to a formal axiology with systematic import in the sense of the metaphysic of the *First Critique*.

Thus, Lessing commits the same error as Kant. Although he sees clearly Kant's confusion of mixing axiological value with the will—the moral fallacy, he does not see the other confusion found in the ethics though not in the epistemology of Kant, that between pure formalism and ethical transcendentalism, the fallacy of method. Kant's "will" is transcendental; that is, it refers to, and determines, empirical acts of willing; but this determination is not *a priori* in the sense of the *First Critique*, since the moral law itself lacks all the determination which the deductions give the categories. Lessing himself made this *Bruch* in the Kantian ethics clearer than anybody.[47] Yet, although he rejects Kant's voluntarism, he accepts in his *Wertaxiomatik* Kant's diffuse transcendentalism, the undetermined reference to the empirical—a synthetic *a*

priori without a determined *a priori*, which is a reference without applicative force. See my discussion elsewhere of the distinction between reference and application.[48] From this it follows that the basis of Lessing's "axiomatic" is analytic and not synthetic, that is, philosophical and not scientific. And hence follow his errors. "Formal laws," he says, "in the strict sense exist only in the pure theoretical sphere."[49] Hence,

> (1) the *a priori* laws of value cannot be formal in the same sense that pure math is, pure logic, pure syllogistic, pure number theory, and the pure theory of quantities and manifolds, *etc.*, are. In the mathematical formula $a = a$ there is no material relation. It is *schlechthin* valid. But axiological laws are, so to speak, of a material kind, for 'value' is a predicate that needs a matter of which it is predicated. In logical laws of a purely formal kind such a relation is not inherent. There is no such reference. Therefore, value laws are relatively material laws which *presuppose* the more formal exactitude of logic.[50]

Here, again, is the fallacy of method. Lessing confuses 'value' and value. The subject of the purely formal proposition "x is good" is a purely formal variable, just as is the predicate; but in the proposition "John is good" both subject and predicate are "material," for both are logical values of the variables (even though "good" looks the same in both cases). "X is good" is an axiological proposition but a logical propositional function.

Lessing continues his analysis of axiology as a science *sui generis* distinct from logic:

> (2) The *logical* laws are self-evident and analytic. We can express them exhaustively with algorithmic symbols, Euler diagrams, *etc.* Each of them is '*true*.' They cannot *collide* as truths one with the other. In axio-logic, on the other hand, there are *no* such self-evident truths. The reason is that there is no isolated value, as there is isolated evident *truth*. Rather, it is in the nature of value that each 'value' stands in a system of 'higher and lower'. Or, in other words: in every value there is the 'in comparison with.' There is no isolated value, no 'isol-value.' The axiological laws always refer to comparison or hierarchy.[51]

The answer to this argument of Lessing *against* the quasi-mathematical nature of value was given by Ortega y Gasset, who uses exactly the same argument *for* such nature. The comparison between values is precisely what makes possible, according to Ortega, a formal axiology, for it is similar to the comparison of inferior and superior in the hierarchy of numbers.

Actually, Lessing misunderstands the logical nature of the axiom: its creative power of a system isomorphic with reality. Hence, he cannot help but

commit the fallacy of method again and again. His last argument for the difference between axiology and logic is (3) that valuative norms cannot be true because truths cannot have a hierarchy; one truth cannot be more true than another; but one value *can* be more valuable than another. He does not see that the value of a truth can be determined and defined by formal axiology, and that a truth can be worth more in one context than in another, for example in the subjective and the objective. Even in logic itself, truths can have different values, according to Lessing's own master, Edmund Husserl.[52] (As explained in an earlier discussion, Daniel Christoff also bases his axiology on the value of logical judgments.)[53] Also, there is more truth in synthetic *a priori* than in synthetic judgments, more truth in a system as a whole than in a statement of the system, more truth in an axiom than in a category, and so on.

All statements within logical systems have the same truth. A truth is formally true in terms of the system of which it is part. Thus, the *truth of* the fact that $5 > 4$ is mathematical and derives its validity from its system. In the same way, the value $A > B$ derives its truth from the axiological system that defines the greatness of value, as betterness, for example. One such truth is no more true than the other since consistent and logical systems have equal value, that is to say, the value of logical consistency. Hence, their truths also have equal value. Of course, truths cannot collide with truths; but neither can values with values. Truths can collide with falsities, and values with disvalues.

Lessing's argument against the identity of logic and axiology is therefore not valid either. He shows clearly his Kantian bias by telling us that even though axiology is not logic it is as *a priori* as logic, but the *a priori* of the practical or axiological region and that of the theoretical or logical region are different *a priori*s. That both are logics, but different ones, he does not see.

(4) Lessing's fourth argument is very ingenious. He concedes that the truth of axiology is as objective or absolute as that of mathematics or logic. "A truth is truth even though nobody understands it." The equations of mathematics and equivalencies in logic are true even though nobody understands them; and some equations of axiologic may be incomprehensible.[54] Yet, there is a fundamental distinction between logic and axiology: *logic itself can be axiologically analyzed.* For this reason, he concludes, axiologic must not be reduced to logic.[55] He thus shows that we must not commit the moral fallacy; we must not confuse value in general with a specific value. If logic can be a specific value, it cannot be value in general.[56] This observation is profound and justified.

Formal axiology shows that there is an applied value logic; but this logic, as applied axiologic, is not the same as the logic of which axiology is itself the application. It is a new logic whose objects are not those of purely formal logic, but, for example, are such objects as the nature of the axiom and of the universal in general, *valued logical objects*. The universal, for example, is *a concept intrinsically valued.* While the concept is an object of logic, the

universal is an object of logic as axiological science. The axiom is a similar object. It is the core of a field of phenomena intrinsically valued.[57] There are thus two logics, formal or systematic logic, and axiologically valued logic. The second is logic as applied axiology, and axiology itself is an application of the first. Valued logic is then an application of an application of formal logic.

It could also be said, and perhaps with more justification, that formal axiology is the overarching formal science since it contains formal logic as axiology of systemic value.[58] This logic can, in turn, be valued, both extrinsically and intrinsically. The extrinsic valuation leads to pragmatic logics such as that of John Dewey, the intrinsic to organic logics like that of José Vasconcelos, phenomenologies such as Edmund Husserl's, vital logics like that of Ortega y Gasset, living logics as that of Carlos Vas Ferreira, the integral logic of Gabriel, and to metaphysical logics like those of Plato and Hegel. Mathematics, then, would be a species of systemic axiology. Thus the sciences, both natural and moral, would fit in the formal science of axiologic. Although Lessing does not have this grand vision for axiologic, he is clear not only about the possibility but the necessity of this new science. His errors are due to his lack of the axiological framework itself, whose forms he yet discerned with precision and whose future he foresaw.

It is up to us to bring about what he envisaged.

NOTES

Chapter One

1. Plato, *Charmides*, 166. *Cf. The Dialogues of Plato*, B. Jowett, trans. (New York, Random House, 1937), Vol. 1, p. 17.

2. Immanuel Kant, *Prolegomena* (Rīga, Prussia: Johann Friedrich Hartknoch, 1783), trans. here by Robert S. Hartman. *Cf.* Paul Carus, *Kant's Prolegomena to Any Future Metaphysics* (Chicago: Open Court Pub. Co., 1949), p. 140.

3. *Ibid.*, p. 143.

4. Robert S. Hartman, *The Structure of Value: Foundations of Scientific Axiology* (Carbondale and Edwardsville, Ill.: Southern Illinois University Press, 1967), pp. 121–131.

5. *Ibid.*, pp. 31–43, 69–92. See also Robert S. Hartman, "The Logical Difference Between Philosophy and Science," *Philosophy and Phenomenological Research*, 23 (March 1963), pp. 353–379.

6. Hartman, *The Structure of Value*, pp. 43–54, 101–106.

7. See Robert S. Hartman, "La Creación de una Ética Científica," *Dianoia*, 1 (1955), pp. 205–235.

8. G. E. Moore, *Principia Ethica* (Cambridge, England: The University Press, 1903), Sect. 75 ff., pp. 126 ff.

9. See Robert S. Hartman, "Crítica Axiológica de la Ética de Kant," *Revista Mexicana de Filosofia*, 1 (1958), pp. 75–84; "The Logic of Description and Valuation," *Review of Metaphysics*, 14 (December 1960), pp. 206–207; *The Structure of Value*, pp. 265 ff.

10. Gottlob Frege, *Die Grundlagen der Arithmetik* (Breslau, Poland: M. & H. Marcus, 1934), p. 34.

11. Rudolf Carnap, "Intellectual Autobiography," *The Philosophy of Rudolf Carnap.* Paul A. Schilpp, ed. (La Salle, Ill.: Open Court Pub. Co., 1963), p. 6.

12. Bertrand Russell, *Our Knowledge of the External World* (London: G. Allen & Unwin, 1952), p. 191.

13. Moore, *Principia Ethica*, pp. 12–15.

14. *Ibid.*

15. Sigmund Freud, *New Introductory Lectures on Psycho-Analysis* (New York: W. W. Norton & Company, 1933), p. 227.

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ROBERT S. HARTMAN was Research Professor of Philosophy at The University of Tennessee and at the National University of Mexico when he died on September 20, 1973. He was buried near his home in Cuernavaca, Mexico. He was born in Berlin on January 27, 1910. He attended the German College of Political Science, the University of Paris, the London School of Economics, and Berlin University, where he received he LL.B. in 1932. For a brief period, he taught at Berlin University and served as an assistant district court judge.

Hartman's rejection of Fascism, which he expressed in speeches and articles, brought him into conflict with the Nazi party and forced him to leave Germany, using a fake passport, in 1932. He legally changed his name, which originally was Robert Schirokauer, to the name on his passport, Robert S. (for Schirokauer) Hartman. In 1938, using a Swedish alien's passport, he and his wife, the former Rita Emanuel, and son, Jan, left Europe for Mexico, where they lived until their immigration in 1941 to the United States, where they later became citizens.

Hartman's first teaching position in the United States was at Lake Forest Academy in Illinois. While there, he enrolled at Northwestern University where he received his Ph.D. in 1946. He taught at the College of Wooster in Ohio from 1945–1948, and at the Ohio State University from 1948–1956. He was a visiting professor at Massachusetts Institute of Technology, 1955–1956, and at Yale, 1966. He was Smith Mundt State Department Research Fellow and Exchange Professor at the National University of Mexico, 1956–1957. He held more than fifty lectureships in the United States, Canada, Latin America, and Europe. He was a research professor of philosophy at the National University of Mexico from 1957 until his death in 1973, and at The University of Tennessee from 1968–1973.

Hartman's formal axiology, as the ordering logic for the value sciences, was developed in many published articles and received its most complete expression in his major work, *The Structure of Value: Foundations of Scientific Axiology* (Carbondale and Edwardsville, Ill.: Southern Illinois University Press, 1967). In the field of psychology he applied formal axiology in "The Hartman Value Profile," a value test widely used in Mexico and by psychiatrists, psychologists, and business consultants in the United States.

Since Hartman's untimely death, his work has been carried on by members of the Robert S. Hartman Institute, composed of former colleagues, students, and many others who have been deeply influenced by the man and his thinking. Members of the Institute have posthumously published many of his writings, as well as critical studies and applications of his work. These include his autobiography, *Freedom to Live: The Robert Hartman Story*, ed. Arthur R. Ellis (Amsterdam—Atlanta: Editions Rodopi, 1994), and two books containing previously unpublished essays and contemporary critical reactions to his positions—*Forms of Value and Valuation: Theory and Appli-*

cations, eds. Rem B. Edwards and John W. Davis (Lanham, Md.: University Press of America, 1991) and *Formal Axiology and Its Critics*, ed. Rem B. Edwards (Amsterdam—Atlanta: Editions Rodopi, 1995). Several other books based on Hartman's work have also been published in the Hartman Institute Studies in Axiology special series of the Value Inquiry Book Series.

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1991); *Formal Axiology and Its Critics* (Amsterdam—Atlanta: Editions Rodopi, 1995); *Violence, Neglect, and the Elderly*, co-edited with Roy Cebik, Glenn Graber, and Frank H. Marsh (Greenwich, Conn.: JAI Press, 1996); *New Essays on Abortion and Bioethics* (Greenwich, Conn.: JAI Press, 1997); *Ethics of Psychiatry: Insanity, Rational Autonomy, and Mental Health Care* (Buffalo, N.Y.: Prometheus Books, 1997); *Values, Ethics, and Alcoholism*, co-edited with Wayne Shelton (Greenwich, Conn.: JAI Press, 1997); *Bioethics for Medical Education*, co-edited with Dr. Edward Bittar (Stamford, Conn.: JAI Press, 1999); *Religious Values and Valuations* (Chattanooga, Tenn.: Paidia Publishing Co, 2000); *What Caused the Big Bang?* (Amsterdam—New York: Editions Rodopi, 2001); and, with Thomas M. Dicken, *Dialogues on Values and Centers of Value: Old Friends, New Thoughts* (Amsterdam—New York: Editions Rodopi, 2001). Edwards is also the author of over sixty articles and reviews, including "How Process Theology Can Affirm Creation *Ex Nihilo*," *Process Studies*, 29:1 (2000), pp. 77–96.

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INDEX

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